

I N D E X.

P

Pindaric ode, 398

R

Rogers, a sonnet to, 71
Rousseau, his introduction into the sphere of sensibility, 216

S

Spider, ode to, 67
Sonnet to S. Rogers, 71
Steel, on the uses of, ibid
Sonnet to a cropt flower, 72
——— evening, ibid
Sleep, the cave of, by Dryden, 142
——— by a correspondent, 143
Sonnet on Fame, 144
Sonnet, to Despair, ibid
Sonnet on Grief, 214
——— on a Locket, 215
——— on Beauty, 387
——— by Charlotte Smith, 464

T

Thunder-storm, lines to a lady who drew pins from
her bonnet during, 68
Tomb, Leontine's, 461

W

Wife, the, 213
Wife but too late, 386

3

1

6

7

1

d

2

d

2

3

4

d

4

5

7

4

3

1

3

6

I N D E X.

W

Woolcot Dr. Anecdotes of	78
Wooden leg, a Helvetic tale,	95
West India trade, historical account of the Spanish,	364

Y

Young Dr. anecdote of	307
-----------------------	-----

P O E T R Y

A

Anacreon, from,	318
-----------------	-----

B

Balloon, on the ascent of,	69
Ballad, translation of an Italian one	70
Beauty, sonnet on,	387
Butterfly, on putting one out at a window,	463

C

Constantia,	315
Content,	316
Courtship, on,	318

D

Despair, Sonnet to,	144
---------------------	-----

I N D E X.

Evening, sonnet to,	72
Epigram,	216
Elegy,	313
Extempore,	316
Epigram,	317
Echo, on an,	Ibid.

F

Flower, sonnet to a cropt	72
Fame, sonnet to	144
Fine lady, the modern,	385

G

Grief, sonnet on,	214
Genius, on,	314

H

Happiness, on true,	70
Hunting-horn, verses on,	388

I

Italian Ballad, translation of an	70
Infancy,	88

L

Locket, sonnet on,	215
Leontine's Tomb,	461

M

Monody, proper materials for,	215
-------------------------------	-----

N

Night Mare,	141
-------------	-----

O

Ode to a Spider,	67
—a Pindaric,	389

I N D E X.

Ledyard's methods of travelling	189
Legislation of Lycurgus, general reflections on	239
Longevity, an uncommon instance of	295
Love and devotion, books of	345
Letter from Madam Necker	412

M

Marriage ceremonies in Delos,	32
Mechanism, ingenious pieces of	91
Man, an essay on	95
Mathematical Theorem	147
Messina, account of an earth-quake at	187
Materials of writing, origin of	263
Method of freeing apple trees from moss	298
Marble mountains, account of some in Egypt	443

N

Natural history of the Isle of France	75
New views of the origin of the tribes of America,	131
Necker, letter from Madam,	412

O

Organ, the invention of	123
Occurrence in the Rhætian Alps	128
Origin of the materials of writing	263
Orientals, observations on their customs,	335

P

Plants, on the generation of	80
Petrarch's account of his ascending mount Ventoux	167
Peter Corneille,	171
Phlogistic and Anti-Phlogistic theories, some account of,	200
Phosphoric property of Vitriolated Tartar	211
Paris, account of in 1698,	445

I N D E X

R

Rhine, timber floats on the	8
Rotalia's lanquary	88
Reading, on an early taste for	175
Rhaetian Alps, occurrence in	128
Ruins, the pleasure of	223
Red children, observations on two	337
Rock and Cascade, a description of a remarkable	380
Rights of the Brute-creation	435
Ragotski, anecdote of	457

S

Subterraneous cavern at Paris, account of an excursion through,	48
Silver heels, anecdote of,	202
St. Albert a true history of,	219
Silk-worm, observations on the native	326
St. Vincent de Paul, character of	342
Sea fight,	348
Silk-worm, new method of feeding	362
Spanish play, curious account of,	421
Shakespeare's crab-tree, account of,	432

T

Travels into Egypt,	5
Timber floats on the Rhine,	10
Tombs, the pleasures of	107
Turkish story teller, an account of	110
Taste, general reflections on	235
Turkish justice, a remarkable instance of	381
Tonquin Conjurors,	404
Tombs, ancient ones found in the North,	429

V

Vaucluse, description of	23
Voltaire, a portrait of	204
Vitriolated Tartar, of the Phosphoric property of	211
Vaillant's journey, some particulars of,	405

I N D E X.

C

Cypress swamps in Delaware and Maryland states, description of,	12
Contrasts, on	56
Cerigo the Isle of	153
Conspiracy, a remarkable one discovered at Moscow by Peter the Great	195
Character, early indications of	229
Chefs, the morals of	301
Classics, on teaching the	306
Conception and expression,	344
Countenance, an indication of the interior character	373
Charles XII. anecdote of	400
Cleanliness, advantages of,	402
Conjurors, Tonquin,	404
Chemistry, state of, in Germany,	407
Cold, effects of it in—1788-89	409
Crab-tree, an account of Shakespeares'	432
Children's heads, on the form given by certain people to	442
Camelopardalis, or Giraffe, account of	452

D

Description of the Cypress swamps in Delaware and Maryland states,	12
Description of Vacluse,	23
Delos, marriage ceremonies in	32
Detraction, a vision,	36
Description of the King of Dahomy's palace,	154

E

Egypt, travels into	5
Earthquake at Naples, account of,	85
Electric fluid	139
Elephant, anecdotes of the	156
Electricity, on the knowledge of the ancients of	106
Early indications of character,	229
Ephemeron, the philosophical	300
Eminent artists, anecdotes of	383
Electricity, on	397
Elephants, account of capturing	423
Egypt, account of marble mountains in	443

I N D E X.

F

Fortune, the sport of	157
Fame, of Posthumous,	354
Fontaine, anecdote of	384
Fishes, account of the regeneration of some parts of	449

G

Gibbon, anecdotes of	150
General reflections on taste	235
Germany, state of Chemistry in,	407

H

Hair dressers of Paris, Humourous suit of	8
Herculaneum, Pompeii and Stabia, a succinct account	
of	104
Happiness, on	178
Horizon, remarks on the artificial,	672

I

Iron bridge, account of	3
Isle of France, natural history of	75
Ingenious pieces of mechanism	91
Instruction, on early	116
Indian insect, a description of an	331
Industry, remarks on, No. I.	375
No. II.	403
Infectious diseases, prevented by cleanliness	402
Iron mask,	433

J

Judge, the prudent 362

K

King of Dahomy's palace, description of 154

L

Luxury, an essay on	27
Lavoisier, life and labours of	39
Lycurgus, the life of	44
Letter to the Editor of a magazine,	113

O could I wanton—rove like thee
On filken wing, from bud to tree,
My blifs would never cloy

Here ! from yon wood sad Philomel
Her love-lorn anguish mildly tell ;
Soft trills her tender woe :
The bee her labor has begun,
And sips the produce of the sun :
Then haste, my fly, to go.

When winter comes, seek out my cell,
Again with grief and me to dwell,
And mourn thy long-lost blifs ;
But lest my soul ere then be fled,
This form be mingl'd with the dead,
Take thou a parting kiss.

S O N N E T.

BY CHARLOTTE SMITH.

FAR on the sands, the low, retiring tide,
In distant murmurs hardly seems to flow ;
And o'er the world of waters, blue and wide,
The sighing summer-wind forgets to blow.

He sinks the day-star in the rosy west,
The silent wave, with rich reflection, glows :
Alas ! can tranquil nature give me rest,
Or scenes of beauty soothe me to repose !

Can the soft lustre of the sleeping main,
Yon radiant Heav'n, or all creation's charms,
"Erase the written troubles of the brain,"
Which mem'ry tortures, and which guilt alarms ?
Or bid a bosom transient quiet prove,
That bleeds with vain remorse, with un-extinguish'd love ?

I N D E X

TO THE

THIRD VOLUME:

P R O S E.

A

Almorán and Selima, an Eastern Tale	53
Anecdote of the Bishop D'Orleans,	65
Anecdotes of Dr. Woolcot,	78
Account of an earth-quake at Naples,	85
Account of the Athenian Theatre,	98
Account of a Turkish story-teller,	110
Anecdotes	130—140—212—312
America, new views of the origin of the tribes of	131
Anecdotes of Gibbon,	150
Anecdotes of the Elephant,	156
Account of an Earthquake at Messina,	187
Anecdote of Silver-heels, a Mohawk warrior,	202
Animal substances, on the conversion of	258
Apple trees, method of freeing them from moss,	298
Abstinence, a remarkable case of	308
Albinos, observations on the	335
Artificial Horizon, remarks on the	372
Artists, anecdotes of eminent,	383
Ancient tombs found in the north,	429

B

Biographical anecdotes of the Count de Buffon,	118
Barthelemy, an account of,	224-333
Bread fruit tree, account of,	305
Bastile, a description of the	321
Boccage, Memoirs of the life and writings of Ma- dam de	414
Brute cration, the rights of,	435

That cot where my Leontine dwelt,
 And cultur'd each elegant art ;
 Where love's first impression he felt,
 And taught it to glow in my heart.

I pass'd it—and mournfully came
 To the darksome abode of the dead ;
 Where a stone, just engrav'd with his name,
 Shew'd where Leontine pillow'd his head.

A moss-cover'd arch forms his tomb,
 Lightly trimm'd with the blossoms of May ;
 There violets breathing perfume,
 Sweetly hail the arrival of day,

There blended with tall sprigs of rue,
 Grows the wild-scented-thyme of the heath ;
 While rosemary, trickling with dew,
 Wets the thought-wakening-panfy beneath.

Emblematic of Leontine's truth,
 At his head a green myrtle I've plac'd ;
 While the feet of the amiable youth,
 With a maiden's-blush rose-tree I've grac'd.

But ah ! long ere its buds shall disclose,
 Those chaste beauties for which they're carest ;
 I shall droop like an over-charg'd arose,
 And sink on my Leontine's breast.

ARIETTE.

ON POLITENESS.

THERE is a varnish, which the world lays on,
 (For deep scholastic learning gives it not)
 And calls Politeness. In good sooth 'tis pleasing,
 And sweetly notes the finish'd gentleman.
 Yet should you ask me its intrinsic worth,
 I should be pos'd ; since every virtue makes
 The heart its seat, and gay Politeness plays,
 Like vapour, o'er the finish'd form.

'Tis what the courtier, by much aping, spoiles;
'Tis what the gownsman mimics out in vain;
'Tis what the lover to his mistress pays
For solid truth, what the swains despise;
Wisdom admires it, but adores it not;
It charms by falsehood, and with softness wounds;
An intimate with Vice, yet often seen
In Virtue's train, but no essential there.

VERSES

WRITTEN BY A YOUNG LADY OF FIFTEEN,

*On putting a Butterfly out at her Window, after having
been in her Room all Winter.*

Go! happy insect! fly thy way,
And frolick all the live-long day,
Where'er thy fancy please;
Th' tender form no blasts needs fear;
Soon will the summer smiles appear—
Then fly and take thine ease.

The damask rose-bud soon will blush;
Already hear yon warbling thrush
Tune his sweet note to love:
Then, happy creature, haste away,
The spring invites--no longer stay;
But haste its joys to prove.

Go! on the lilly's bosom play,
Which soon will welcome in the May;
Soon charm the gazing sight:
Till then the violet beds frequent,
Where odor of the sweetest scent
Will yield thee pure delight.

Oft may I meet thee in the grove,
And see thee wanton--see thee rove;
Blest Liberty enjoy:

Young Lehman, though equally imprudent as his brother, was, however, not so unfortunate. He had nothing more at heart than to hasten to Vienna, to inform the Princess of her husband's happy escape, and, perhaps, he would have reminded her of the reward which he expected for that service, but the affair was already known at court, so that he was under the necessity of seeking safety by a precipitate flight, in which he was generously assisted by the Princess.

This Prince, whose goods were confiscated, and on whose head a price was set by the Emperor, found means afterwards of being amply revenged, by heading the Hungarian malcontents. "If you find any one," said he, "more worthy of commanding you, I am ready to serve under him, and in whatever station you may place me, I shall always think myself happy to fight for your liberties, and to die with my arms in my hand while I am discharging this duty."

Two months after, he took the fort of Katto, and put to the sword all the Imperialists who had not given quarter to the Hungarians. After having combated with equal success and glory, the states of Hungary declared him protector of the kingdom until they should elect a new king. In 1713, when the Hungarians made a treaty of peace with the Emperor, Prince Ragotiki went to France, and thence to Constantinople, where he afterwards resided, esteemed by the Otoman court, and beloved by his acquaintances, and by all those who knew how to appreciate his great qualities. He died there on the 8th of April, 1725, at about the age of fifty six.

POETRY.

LEONTINE'S TOMB.

I Pass'd by the wide-spreading oak,
Around which the fond ivy had clung;
I beheld--Oh! the heart-piercing stroke!
Where my Leontine formerly sung.

Its dew-drops the morn had just shed,
Enriching each branch of the tree?
And I could not but think they were spread,
As kind tokens of sorrow for me.

I pass'd by the smooth flowing stream,
That so silently once deck'd the vale;
And it seem'd (but perhaps 'twas a dream)
With sad murmurs to burthen the gale.

I pass'd by the jessamine bow'r,
Where love tun'd my Leontine's tongue;
And I search'd but discern'd not a flow'r,
Where erst in profusion they hung.

I pass'd by the neatly-thatcht cot,
Which was wont to excite the soft blush;
I could not but sigh at my lot,
And indulge in the sorrowing gush.

Empress, had not been able to banish gallantry. All beheld the Princess of Ragotki, rather as the wife of an unfortunate man than of a criminal. Having had the address to gain over to her interest even the Monks, she was enabled, by their means, to procure some information respecting her husband, and to acquaint him of her situation. She discovered also by their assistance, that the officer entrusted with the care of guarding him was a soldier of fortune named Lehman, a man devoted to pleasure, and who either from disposition, or to banish the gloom of the prison in which he was as it were shut up, had converted the castle of Neustadt, where he commanded, into a kind of seraglio. The Princess of Ragotki, informed of this particular, immediately concluded, that a man of Captain Lehman's temper would not be displeased with her portrait; she therefore caused one to be painted, and sent it to him in a box set with diamonds. This present was received with the liveliest gratitude, and the desire of seeing a Princess whom he found so beautiful, contributed not a little to make him grant the first favor she asked, which was permission to pass one night with her husband. With the consent of the Governor, who promised the most inviolable secrecy, the Princess requested leave from the Empress to go and discharge a vow at Mariendal, a place of pilgrimage then much in vogue, twelve leagues from Vienna, and very near Neustadt.

When she arrived at Mariendal, she found there one of Captain Lehman's friends, together with his brother, who procured her the complete dress of a peasant, by means of which she was introduced into the castle, without any danger of being detected, but not however without being exposed to the raillery of the centinels, who were accustomed to pass their jokes upon those who paid such visits to the Governor.

The Princess, after having given the Governor ever testimony of her gratitude, inspired him with hopes the most calculated to seduce him, in case he could, without injuring his honor, facilitate her husband's escape. This temptation was too powerful to be resisted, and the Governor agreed to the proposal, provided his brother could be prevailed on to undertake the management of the whole affair.

The brother, who was younger and still more presump-

tuous, charmed with the Princess' proposal, which left room for the most flattering hopes, required very little entreaty to induce him to promise that he would serve her, were it even at the hazard of his life. He therefore conducted her back next morning to Mariendal, where she resumed her usual dress and proceeded thence to Vienna, very much satisfied with her pilgrimage.

When matters were thus concerted, the Princess lost no time in making every preparation to secure her husband's flight. She provided horses to be ready for him on the roads where he was to pass, and having, under various pretences, engaged boats necessary to cross the different arms of the Danube which form the island of Schut, and in such a manner that no delay or impediment might arise, the young man repaired to Neustadt, as if with an intention of taking leave of his brother before he joined his regiment.

As soon as he arrived at Neustadt, he made his portmanteau and the dress of a groom, in which the Prince was to disguise himself, to be carried into the Governor's apartment. The door of the prisoner's chamber was at the end of a long gallery, contiguous to that of Captain Lehman, and orders were given that it should be always left open, in order that the sentinel who was posted there, might see every thing that passed.

Towards the evening of the day appointed for the Prince's escape, at the moment when the castle was lighted, the Captain appeared at the door with a candle in his hand, which he gave to the centinel to light at the other end of the gallery. The Prince who was prepared, embraced that opportunity, glided into the Captain's apartment, put on the groom's dress, took up the portmanteau of young Lehman upon his shoulders, and preceded by this officer, who was not suspected by the garrison, got out of the castle without being known, and having traversed all Hungary, arrived safe in Poland.

He regretted, however, that he could not prevail upon the Governor to follow him. This man, from motives of avarice, having put off his flight till the next morning, was discovered, arrested by his own soldiers, and a few days after put to death.

color of their mother, but in proportion as they advance in age and size, they become browner.’,

“ These quadrupedes feed upon the leaves of trees, and particularly on those of a mimosa, peculiar to the canton which they inhabit ; meadow grass forms also part of their aliment, but they are not under the necessity of kneeling down to browse or to drink, as some have improperly believed.

“ They often lie down down to ruminate or to sleep, which causes a considerable callosity on the sternum, and makes their knees to be always covered with a hard skin.”

“ Had Nature endowed the Giraffe with an irascible disposition, it certainly would have had cause to complain : for the means with which it is provided either for attack or defence are very trifling. It is indeed a peaceful and timid animal ; it shuns danger, and flies from it, trotting along very fast : a good horse can with difficulty overtake it.”

“ It is said that it has not strength to defend itself, but I know beyond a doubt, that by its kicking it often tires out, discourages, and drives away the lion. Except upon one occasion, I never saw it make use of its horns ; they may be considered as of no utility, were it possible to doubt of the wisdom and precaution employed by Nature, the motives of which we are not always able to comprehend.”

The dimensions of this animal, were taken from the stuffed skin of one shot by Lieutenant Paterfon, in his travels into the interior parts of Africa. This skin is now in the possession of John Hunter, Esq. Leicester-square.

The height of this camelopard, in its natural position, taken from the hoof to the top of the horns, was

	Feet	Inches
Ditto from the hoof to the shoulder	14	9
Length of the fore legs	9	7 1-2
Ditto of the hind legs	5	7
Ditto of the body from the shoulder to the rump	5	6 1-2
Ditto of the neck	5	9
Ditto of the tail without hair	4	3
Ditto of the horns	1	10 1-2
Distance between ditto	0	0 1-2
Length of the hair of the mane, from three to four inches, and of a reddish color.—Mr. Patterfon adds, “ These animals chiefly subsist upon the mimosa and wild apricots. Their co-		

"lor is in general reddish, or dark brown and white; they are
 "cloven footed; have four teats; their tail resembles that of
 "a bullock, but the hair of the tail is much stronger, and in
 "general black: they have eight four teeth below, but none
 "above; and six grinders, or double teeth, on each side, a-
 "bove and below; the tongue is rather pointed and rough:
 "they have no footlock hoofs; they are not swift,* but can
 "continue a long chace before they stop; which may be the
 "reason that few of them are shot,—It is difficult to distinguish
 "them at any distance, from the length of their body, which
 "together with the length of their neck, gives them the appear-
 "ance of a decayed tree."

ANECDOTE CONCERNING RAGOTSKI PRINCE OF TRANSYLVANIA.

THIS Prince was imprisoned in the castle of Neustadt
 in 1701, as accused of having attempted to stir up the
 Hungarians against the Emperor, and was in great dan-
 ger of never getting out, but to be conducted to the scaf-
 fold.

The Princess, his spouse, whom he loved tenderly, and
 who was equally fond of her husband, exerted all her in-
 fluence with the Empress, to whom she was related, in
 order to put off his trial, hoping that in the mean time
 she might find some method of procuring him his liberty.
 She was young, beautiful, and well made, equally intri-
 guing as lively, and acquainted with the art of pleasing.
 Possessed of these qualities, she could not fail of having
 many partizans and friends, even in a court from which
 the austere character of the Emperor, and the zeal of the

* In this Mr. Paterfon's account seems to disagree with that of Mr.
 Vaillant.

Mr. Vaillant, who has lately published an account of his travels into the interior parts of Africa, speaking of the Giraffe, says, "if among the known quadrupedes, precedence be granted to height, the Giraffe without doubt, must hold the first rank. A male, which I have in my cabinet, measured after I killed it, sixteen feet four inches from the hoof to the extremity of its horns. I use this expression to make myself be understood, for the Giraffe has no real horns, but between its two ears, at the upper extremity of the head, arise in a perpendicular and parallel direction, two excrescences from the cranium which, without any joining, stretch to the height of eight or nine inches, terminating in a convex knob, and are surrounded by a row of strong straight hair, which overtops them by several lines."

"The female is generally lower than the male. One I killed was only thirteen feet six inches in height, and her incisive teeth, which were almost all worn away, incontestibly proved that she had attained to the full growth."

"In consequence of the number of these animals which I have killed, and had an opportunity of seeing, I may establish as a certain rule, that the males are generally fifteen or sixteen feet in height, and the females from thirteen to fourteen."

"Whoever should judge of the thickness and strength of these animals from the above dimensions would be greatly deceived; I may almost say, that they consist of nothing but neck and legs. The eye indeed that is accustomed to the long and full figures of the quadrupedes of Europe, finds no proportion between a height of sixteen feet, and a length of seven, taken from the tail to the breast. Another deformity, if it may be called one, makes us contrast the parts before and those behind. The former have a considerable thickness towards the shoulders, but the latter are so thin and meagre, that they do not seem formed the one for the other."

"Naturalists and travellers, who speak of the Giraffe, all agree in making the hind legs only half the length of those before; but did those who say so, really see the animal, or if they saw it, did they consider it attentively?"

"An Italian author, who certainly never saw it caused a figure of it to be engraved at Venice, in a work entitled *Descrizioni degli Animali*, 1771. This figure is exactly formed

from the descriptions which had been then published of the animal ; but this exactness renders it so ridiculous, that we must consider it, on the part of the Italian author, as a severe criticism on all the accounts which had appeared, and which have been so often repeated."

"Of all authors, not of a modern date, who have spoken of this animal, the most exact is Gillius, who says expressly, that "the *Giraffe* has its four legs of the same length, but that "the fore thighs are so long, in comparison with those behind, "that the back of the animal appears inclined like the roof of a "house." If by the fore thighs Gillius means the omoplate, or shoulderblade, his assertion is just, and I fully agree with him."

„The account given by *Heliodorus*, is far from being so correct. If we believe that he speaks of a *Giraffe*, when he says, "its head is only double the size of that of the ostrich," we must conclude, that things have changed much since, and that in the lapse of time Nature has made either the one or the other of these animals suffer great variations."

"The horns forming a part of the cranium, as I have already said, can never fall off. They are not solid, like those of the stag, nor composed of any substance analogous to the horns of an ox, much less do they consist of hair united, as Buffon supposes. They are simply of a boney calcareous substance, divided by a multitude of small pores, like all bones, and are covered throughout their whole length with short coarse hair, which has no resemblance to the soft down that covers the young horns of roe-bucks or stags."

"The figures of this animal given in the works of Buffon and Vossmar, are in general defective ; they have made the horns terminate in a point, which is contrary to the truth. Instead of bringing the mane only to the shoulders, they have prolonged it to the root of the tail ; a mistake, which, added to many others disgraces and renders of no utility to science these false representations, in which people very improperly confide on account of the reputation of the authors who avow them."

"The *Giraffes*, both male and female, are spotted in the same manner ; but without paying attention to inequality of size, they may easily be distinguished from each other even at a distance. The male, on a greyish white ground, has large spots of a dark brown colour, almost approaching to black ; and the female, on a like ground, has spots of a tawney color, which render her less striking. The young males are at first of the

Mr. Vaillant, who has lately published an account of his travels into the interior parts of Africa, speaking of the Giraffe, says, "if among the known quadrupedes, precedence be granted to height, the Giraffe without doubt, must hold the first rank. A male, which I have in my cabinet, measured after I killed it, sixteen feet four inches from the hoof to the extremity of its horns. I use this expression to make myself be understood, for the Giraffe has no real horns, but between its two ears, at the upper extremity of the head, arise in a perpendicular and parallel direction, two excrescences from the cranium which, without any joining, stretch to the height of eight or nine inches, terminating in a convex knob, and are surrounded by a row of strong straight hair, which overtops them by several lines."

"The female is generally lower than the male. One I killed was only thirteen feet six inches in height, and her incisive teeth, which were almost all worn away, incontestibly proved that she had attained to the full growth."

"In consequence of the number of these animals which I have killed, and had an opportunity of seeing, I may establish as a certain rule, that the males are generally fifteen or sixteen feet in height, and the females from thirteen to fourteen."

"Whoever should judge of the thickness and strength of these animals from the above dimensions would be greatly deceived; I may almost say, that they consist of nothing but neck and legs. The eye indeed that is accustomed to the long and full figures of the quadrupedes of Europe, finds no proportion between a height of sixteen feet, and a length of seven, taken from the tail to the breast. Another deformity, if it may be called one, makes us contrast the parts before and those behind. The former have a considerable thickness towards the shoulders, but the latter are so thin and meagre, that they do not seem formed the one for the other."

"Naturalists and travellers, who speak of the Giraffe, all agree in making the hind legs only half the length of those before; but did those who say so, really see the animal, or if they saw it, did they consider it attentively?"

"An Italian author, who certainly never saw it caused a figure of it to be engraved at Venice, in a work entitled *Descrizioni degli Animali*, 1771. This figure is exactly formed

from the descriptions which had been then published of the animal ; but this exactness renders it so ridiculous, that we must consider it, on the part of the Italian author, as a severe criticism on all the accounts which had appeared, and which have been so often repeated."

" Of all authors, not of a modern date, who have spoken of this animal, the most exact is Gillius, who says expressly, that " the *Giraffe* has its four legs of the same length, but that " the fore thighs are so long, in comparison with those behind, " that the back of the animal appears inclined like the roof of a " house." If by the fore thighs Gillius means the omoplate, or shoulderblade, his assertion is just, and I fully agree with him."

„ The account given by *Heliodorus*, is far from being so correct. If we believe that he speaks of a *Giraffe*, when he says, " its head is only double the size of that of the ostrich," we must conclude, that things have changed much since, and that in the lapse of time Nature has made either the one or the other of these animals suffer great variations."

" The horns forming a part of the cranium, as I have already said, can never fall off. They are not solid, like those of the stag, nor composed of any substance analogous to the horns of an ox, much less do they consist of hair united, as Buffon supposes. They are simply of a boney calcareous substance, divided by a multitude of small pores, like all bones, and are covered throughout their whole length with short coarse hair, which has no resemblance to the soft down that covers the young horns of roe-bucks or stags."

" The figures of this animal given in the works of Buffon and Vossnar, are in general defective ; they have made the horns terminate in a point, which is contrary to the truth. Instead of bringing the mane only to the shoulders, they have prolonged it to the root of the tail ; a mistake, which, added to many others disgraces and renders of no utility to science these false representations, in which people very improperly confide on account of the reputation of the authors who avow them."

" The Giraffes, both male and female, are spotted in the same manner ; but without paying attention to inequality of size, they may easily be distinguished from each other even at a distance. The male, on a greyish white ground, has large spots of a dark brown colour, almost approaching to black ; and the female, on a like ground, has spots of a tawney color, which render her less striking. The young males are at first of the

which are left. I have seen very large fish live several years, though deprived of the half of their bodies, that is to say, of that part which extends from the anus to the tail.

The wings of birds have been compared to the fins of fish, and the feathers to the cartilages of the latter; but there is a very great difference in respect to the manner in which they are reproduced; we know that the feathers never grow up after they have been cut.

In almost all fish, the cartilages of the fins and tail are very strong and numerous. If we compare the number of these bony substances with that of the bones of the paws of a salamander, we shall find that it is much superior. There is, indeed, a very great difference between these organs, especially respecting the manner in which the different hard parts are connected with one another.

If the membrane which forms the fins has been torn, according to the direction of the cartilages, the two parts will unite, and form a kind of future, which disappears by degrees. Fishes are often found which have several of these futures in their fins, especially in those of the back.

This regenerating faculty of the fins is so much the more useful to fishes, as these parts are continually exposed to be torn or cut either by different bodies being dashed against them, or by the teeth of animals. Their increase, however, appeared to me to be always very slow, but there is every reason to believe that it is much quicker in those fish which are in a state of liberty.

My intention, in these few observations, has been to present a fact, which, in my opinion, may be of some use to physiology, and to offer a new proof of the multiplicity of the resources of nature, when it may be necessary to restore to organized bodies that original state of perfection which they have been deprived of by secondary causes.

ACCOUNT OF THE CAMELOPARDALIS, OR GIRAFFE.

MANY and various accounts have been given of this singular and curious animal; but notwithstanding all that has been said upon the subject, no just or precise idea has been formed till lately of its configuration, and still less has been known of its manners, character, and organization.

As the countries where this animal is found were unknown to the Greeks, Aristotle has made no mention of it. Pliny, however, speaks of it, and Oppian describes it, in a manner which is by no means ambiguous. Some account of it is given also by Heliodorus and Strabo. "The Æthiopian ambassadors," says the former, "brought an animal of the size of a camel, the skin of which, was marked with lively spots and brilliant colours, and its posterior parts were much lower than the anterior. The neck, though joined to a pretty large body, was thin; the head, in figure, resembled that of a camel, and in size was not twice as large as that of the ostrich. The eyes appeared to be tinged with different colours. The gait of this animal was different from that of all other quadrupedes, which in walking lift their feet diagonally; that is, the right fore foot with the left hind foot. It was a gentle creature, and might be conducted at pleasure by a small cord put round its neck."* Strabo describes it in the following words. "In Æthiopia there is a large animal, called the *Camelopardalis*, though it has no resemblance to the panther, for its skin is not spotted in the same manner. The spots of the panther are circular, and those of the camelopard resemble the spots of the fawn or young stag. The hinder parts of the body are much lower than those before, so that at the rump it is not much higher than an ox, and at the shoulders it is higher than a camel. From this disproportion of parts, its motions must not be quick. It is a mild animal, does no mischief, and feeds upon herbs and leaves."†

Belon, Gillius, Gesner, Hasselquist, and several other authors, have mentioned the camelopard; but their descriptions of it are far from being accurate or satisfactory,‡ and that even of the celebrated Buffon is imperfect.

VOL. III.

M m

* Heliodorus, Lib. X.

† Strabo, Lib. XVI. et XVII.

‡ John Leo, in his Description of Africa, speaking of this animal, says, the Giraffe is so wild an animal, that it is rarely seen, for it hides itself in the thick woods and forests, where there are no other animals, and when it sees a man, betakes itself to flight, though it is very far from being swift footed. In its head it resembles a camel; in its ears an ox; and in its feet a stag. Few of this species are ever caught by hunters, but such as are young, and exceedingly small. Johan. Leoni Descrip. Africa, p. 745, Ed. Elz.

animals of two different orders. Some, such as cray-fish, have their skeleton on the outside, that is to say, their soft parts are covered with a hard substance. In others, on the contrary, such as the lizard, the salamander, &c. the skeleton is in the inside, that is to say, the bony part is covered by the parts that are soft.

It is well known that cray-fish, the parts of which are joined to the body by very delicate articulations, are liable to lose them, but that new ones grow up at the end of some weeks.

The reproduction of the paws of salamanders has been traced with the greatest minuteness, by two of the most distinguished observers of the present age, Mr. Bonnet of Geneva, and Mr. Spallanzani. We are indebted to these gentlemen for a number of discoveries in one of the most curious points of physiology. The regeneration, however, of articulate parts, has not been much examined in fishes, a kind of animals very different from those which have been already observed, and of which the blood is never above two or three degrees warmer than the element they inhabit.

I have cut certain portions from the fins of different fishes, and having repeated this experiment at various epochs, I have always found that these parts reproduced themselves nearly. It appeared to me, that they grow up quicker in fishes that are young, and in some species rather than in others.

Having cut away part of the fins of some gold fish, I observed the third day on the edge which had been cut, a kind of whitish excrescence; on the eighth this excrescence was sensibly extended, and it soon became a membrane, which at first was only a line in breadth. This membrane was thicker than that which formed the bottom part of the fin, but in proportion, as it extended itself, it became thinner, and transparent. At the end of three months I could distinguish the formation of the bony ribs, destined to support this membrane. They appeared to be a continuation of the girdles of base. They at first seemed to be of a substance like jelly.

Having cut the right fin of the breast of a gold fish, in the space of eight months that part became as large as the left, which I had not touched. I repeated this operation on the fins of the belly, and the result was always the same. It is true that although the new fins were as large as the old, they remained some time white, and less transparent than the rest.

I made oblique sections transversely, and, in a word, in every direction, in the tail fin of different fishes, and the parts cut always regenerated at the end of a certain time. Fishes subjected to these experiments lost their equilibrium, and their progressive faculty became less in proportion as I cut their fins. They never recovered their natural position until these parts were renewed.

From some fishes I cut off the fins as near to the body as possible; these animals were then unable to keep themselves horizontally in the water. Their heads inclined to the bottom of the vessel; they wavered, and could not, but with great exertion, resume an horizontal position. Their fins grew up very slowly.

The same experiments having been repeated on several fishes, I always observed the same effects. In a carp, which had the edges of its fins gnawed by small fishes, in such a manner, that they appeared to be fringed, I perceived, at the end of some months, that the edges were become perfectly smooth.

I remarked that the fins were renewed generally sooner or later, according as they were more or less useful to the animal. Mr. Spallanzani made a similar observation on earth worms, the heads of which were constantly reproduced sooner than the posterior part of the body; in the like manner, in fishes, the tail fin, the most useful of all, since it enables them to execute almost all their motions, was always formed sooner than those of the belly or the breast; and those which are destined to support the fish at an equal height, and to aid it in its lateral motions, were renewed much sooner than those of the back, in which I could scarcely distinguish the new cartilages seven months after they had been cut.

The membrane which formed the first rudiments of the fin, had different degrees of thickness, according to the different kinds of fishes. It was composed of two leaves, between which were the gristles, composed sometimes of one piece, hard and sharp, but more frequently of several bony parts, closely united by a cartilaginous substance. That the fins may be reproduced, part of the cartilages must be left. If this part be entirely destroyed, new fins will not grow up in the room of the old ones. This I have often observed in several fishes, the dorsal fins of which, with part of the back, had been taken away, and in the room of which there was formed a plain surface.

Though fish cannot well dispense with these organs, they are able in some measure to supply what is wanting by those

down in the very middle of all the streets, about twenty paces distance, and twenty feet high. They are made of a square of glass about two feet deep, covered with a broad plate of iron; and the rope that lets them down is secured and locked up in an iron funnel, and a little trunk fastened in the wall of the house. These lanterns have candles of four in the pound in them, which last burning till after midnight.

As to these lights, if any man break them, he is forthwith sent to the galleys; and there were three young gentlemen of good families, who were in prison for having done it in a frolic, and could not be released thence in some months; and that not without the diligent application of good friends at court.

The lights at Paris, for five months in the year only, costs 50,000*l.* sterling. This way of lighting the streets is in use also in some other cities in France. The king is said to have raised a large tax by it. In the preface to the tax it is said, That considering the great danger his subjects were in, in walking the streets in the dark, from thieves, and the breaking their necks by falls, he for such a sum of money did grant this privilege, that they might hang out lanterns in this manner.

It is to be observed, that the avenues to the city, and all the streets, are paved with a very hard sandstone, about eight inches square, so they have a great care to keep them clean: in winter, for example, upon the melting of the ice, by a heavy drag with a horse, which makes a quick riddance, and cleaning the gutters; so that in a day's time all parts of the town are to so admiration clean and neat again to walk on.

I could heartily wish their summer-cleanliness was as great; it is certainly as necessary to keep so populous a city sweet; but I know no machine sufficient, but what would empty it of the people too: all the threats and inscriptions upon walls are to little purpose. The dust in London, in summer, is oftentimes, if a wind blow, very troublesome, if not intolerable: in Paris there is much less of it, and the reason is, the flat stones require little sand to set them fast; whereas our small pebbles, not coming together, require a vast quantity to lay them fast in paving.

MEMOIR ON THE REGENERATION OF CERTAIN
PARTS OF THE BODIES OF FISHES.

BY MR. BROUSSONET.

IN certain classes of animals we observe some parts susceptible of motion, which reproduce themselves after they have been destroyed; but this reproductive power is much less sensible in animated beings, the organization of which is more perfect, than in those the organization of which being less complicated, seems rather to approach that of vegetables.

Among all the experiments which have been made to prove the possibility of the regeneration of different parts of the same animal, there are some, without doubt, which we are warranted to distrust; and it has happened more than once, perhaps, that when we have imagined that we divided the same individual into distinct portions, we divided only a habitation common to several, which remaining entire in each portion, have renewed their habitation. Numerous observations, however, leave us in no doubt respecting the reproduction of certain organs in marine animals, in earth-worms, in snails and in a great number of other species of the same families. The parts even which we consider as essential to life, such as the head, grow up on those animals after having been cut off. This phenomenon appears very surprising on the first view, because numerous examples have taught us to consider that organ as absolutely necessary to the existence of animals, though experience teaches us that it is less essential in proportion as their organization is less perfect. The tortoise, the different parts of which, in their structure, exhibit less perfection than those of animals the blood of which is warm, lives almost two months after its head has been cut off.

The parts which present examples of this kind of regeneration are in the greater part of animals soft, of a homogeneous substance, and almost like that of the rest of the body. They reproduce themselves almost as the nails, horns, &c. in animals which have warm blood; a circumstance which ought to make us consider as something extraordinary, the new formation of parts composed of substances hard and soft, and formed of several articulations.

This regeneration of articulate parts has been observed in

velvet cushion to church is such another business. The place of a lawyer is valued a third part dearer from this.

Here are also daily to be seen in the streets great variety of monks, in strange unusual habits to us Englishmen: these make an odd figure, and furnish well a picture. I cannot but pity the mistaken zeal of the poor men, that put themselves into religion, as they call it, and renounce the world, and give themselves most severe rules of living and diet. Some of the orders are decently enough cloathed, as the Jesuits, the Fathers of the Oratory, &c.: but most are very particular and obsolete in their dress, as being the rustic habit of old times, without linen, or ornaments of the present age.

As to their meager diet, it is much against nature, and the improved diet of mankind. The Mosaic law provided much better for Jews, a chosen people; that was instituted for cleanliness and health. Now for the Christian law, though it command humility and patience under sufferings, and mortification and abstinence from sinful lusts and pleasure; yet by no means a distinct food, but liberty to eat any thing whatsoever, much less nastiness; and the papists themselves in other things are of this mind, for their churches are clean, pompously adorned and perfumed. It is enough, if we chance to suffer persecution, to endure it with patience, and all the miserable circumstances that attend it; but wantonly to persecute ourselves, is to do violence to Christianity, and to put ourselves in a worse state than the Jews were; for to chuse the worst sort of food, which is four herbs and fish, and such like trash; and to lie worse, always rough, in coarse and nasty woollen frocks upon boards; to go bare-foot in a cold country, to deny themselves the comforts of this life, and the conversation of men; this, I say, is to hazard our healths, to renounce the greatest blessings of this life, and in a manner to destroy ourselves.

The great multitude of poor wretches in all parts of this city is such, that a man in a coach, a foot, or in the shop, is not able to do any business for numbers and importunities of beggars; and to hear their miseries is very lamentable: and if you give to one, you immediately bring a whole swarm upon you. These I say, are true monks, if you will, of God Almighty's making, offering you their prayers for a farthing, that find the evil of the day sufficient for the day, and that the miseries of this life are not to be courted, or made a mock of. These worship, much against their will, all rich men, and make saints of the rest of mankind for a morsel of bread.

But let these men alone with their mistaken zeal: it is certainly God's good providence which orders all things in this world. And the flesh-eaters will ever defend themselves, if not beat the Lenten men; good and wholesome food, and plenty of it, gives men naturally great courage. Again, a nation will sooner be peopled by the free marriage of all sorts of people, than by the additional stealth of a few starved monks, supposing them at any time to break their vow. This limiting of marriage to a certain people only, is a destruction and an abatement of mankind, not less in a papist country, than a constant war. Again this lessens also the number of God's worshippers, instead of multiplying them as the stars in the firmament, or the sand upon the sea shore: these men wilfully cut off their posterity, and reduce God's congregation for the future.

There is very little noise in this city of public cries of things to be sold, or any disturbance from pamphlets or hawkers. One thing I wondered at, that I heard of nothing lost, nor any public advertisements, till I was shewed printed papers upon the corners of streets; wherein were in great letters, *Un, Dis Cinq, Dix. Jusq; a Cinquante Louises a ganger*, this is from one to fifty Louis to be got; and then underneath an account of what was lost. This sure is a good and quiet way; for by this means, without noise you often find your goods again; every body that has found them, repairing in a day or two to such place. The Gazettes come out but once a week, and but few people buy them.

It is difficult and dangerous to vend a libel here. While we were in town, a certain person gave a bundle of them to a blind beggar, of the hospital of the *Quinzevingt*, telling him he might get five pence for every penny. He went to *N. stre Dame* and cried them up in the service-time, *La vie & Miracles de l'Eveq; de Reims*. This was a trick that was played the Archbishop, as it was thought by the Jesuits, with whom he has had a great contest about *Molinas, the Spanish Jesuit's D.ctrine*. The libel went off at any rate when the first buyers had read the title further, and found they were against the present Archbishop, duke and first peer of France.

The streets are lighted alike all the winter long, as well when the moon shines, as at other times of the month; which I remember the rather, because of the impertinent usage of our people at London, to take away the lights for half the month, as though the moon was certain to shine and light the streets and that there could be no cloudy weather in winter. The lanthorns here hang

of no great beauty. They continued as the granite did, for several miles along the road, while the opposite side was all of dead green, supposed serpentine marble.

It was one of the most extraordinary sights I ever saw; these mountains before us had all the appearance, the one of having been sprinkled over with Havannah, the other with Brazil snuff. I wondered, that, as the red is nearest the sea, and the ships going down the Abyssinian coast observe this appearance within lat. 26° , writers have not imagined this was called the *Red Sea* upon that account, rather than for the many weak reasons they have relied upon. The highest mountain we found upon examination to be composed of serpentine marble; and through about one-third of the thickness ran a large vein of jasper, green, spotted with red. Its exceeding hardness was such as not to yield to the blows of a hammer; but the works of old times were more apparent in it than in any mountain we had seen. Ducts or channels for carrying water transversely, were observed evidently to terminate in this quarry of jasper, a proof that water was one of the means used in cutting these hard stones.

The porphyry shews itself by a fine purple sand, without any gloss or glitter in it, and is exceedingly pleasant to the eye. It is mixed with the native white sand, and fixed gravel of the plains. Green unvariegated marble is generally seen in the same mountain with the porphyry. When the two veins meet, the marble is for some inches brittle, but the porphyry of the same hardness as in other places.

The granite is covered with sand, and looks like stone of a dirty brown colour; but this is only the change and impression the sun and weather have made upon it; for upon breaking it you see it is grey granite, with black spots, with a reddish cast, or blush over it. This red seems to fade and suffer from the outward air, but upon working or polishing the surface, this colour again appears. It is in greater quantity than the porphyry, and near the Red Sea. Pompey's pillar seems to have been from this quarry.

Next to the granite, but never, as I observed, joined with it in the same mountains, is the red marble. It is covered with sand of the same colour, and looks as if the whole mountain were spread over with brick dust. There is also a red marble with white veins, which I have often seen at Rome, but not in principal subjects; I have also seen it in Britain. The common green, (called serpentine) looks as if covered with Brazil

snuff. Joined with this green, I saw two samples of that beautiful marble they call Isabella, one of them with a yellowish cast, which we call Quaker-colour; the other with a blueish, which is commonly termed Dove-colour. These two seem to divide the respective mountains with the serpentine. In this green, likewise, it was we saw the vein of jasper, but whether it was absolutely the same with this, which is the bloody jasper, or blood-stone, is what we had not time to settle.

I should first have made mention of the verde-antico, the dark green with white irregular spots, because it is of the greatest value, and nearest the Nile.

This is produced in the mountains of the plain green or serpentine, as is the jasper, and is not considerable by the dust or any particular colour upon it.

First, there is a blue fleshy stone, exceedingly even and smooth in the grain, solid, and without sparks or colour. When broken it is some thing lighter than a slate, and more beautiful than most marble; it is like the lava of volcanos, when polished. After lifting this, we come to the beds of verde antico; and here the quarrying is very obvious, for it has been uncovered in patches, not above twenty feet square. Then, in another part the green stone has been removed, and another pit of it wrought.

Mr Bruce makes a very judicious observation, that from this discovery we need no longer wonder from whence came the immense quantity of marble used by the ancients.

The following Account of Paris, extracted from an old Work, compared with its present State, will afford our Readers a striking Contrast.

SOME ACCOUNT OF THE CITY OF PARIS

IN 1698. BY DR. LISTER.

AMONGST the living objects to be seen in the streets of Paris, the counsellors and chief officers of the court of justice made a great figure. They and their wives have their trains carried up; so there are abundance to be seen walking about the streets in this manner. It is for this, that places of that nature sell so well. A man that has a right to qualify a wife with this honour, shall command a fortune; and the carrying a great

the blind. You may entertain him, keep him company, or supply him with every comfort, convenience, and amusement of life, which he is capable of enjoying. And thus may you make some attonement for the injury which you have done unto a man ; and by thy assiduity and future tenderness, thou mayest obtain his pardon, and palliate thine own offence. But what is all this to the injured *brute* ? If by thy passion, or malice, or sportive cruelty, thou hast broken his limbs or deprived him of his *eye sight*, how wilt thou make amends ? Thou canst do nothing to amuse him. He wants not thy money, nor thy cloths. Thy conversation can do him no good. Thou hast obstructed his means of getting subsistence, and thou wilt hardly take upon thyself the pains and trouble of procuring it for him (which yet by the rate of justice thou art bound to do ;) thou hast marred his little temporary happiness, which was his all to him ; thou hast maimed or blinded him for ever, and hast done him an irreparable injury.

OF THE FORM GIVEN BY CERTAIN PEOPLE TO THEIR CHILDREN'S HEADS.

THERE are a great number of absurd practices which may be traced to a very high antiquity. Hippocrates speaks of a very ancient people, who inhabited the borders of the Black Sea, whom he calls *Macrocephates*, or long heads. These people had the strange practice of pressing the head out in length of their new-born children, and among whom this method, repeated from generation to generation, had at length rendered this conformation of the head natural and hereditary.

The greater part of the islanders in the Archipelago, some of the people of Asia, and even some of those of Europe, still press their children's heads out lengthwise. We may observe also that the Epirots, many people of America, &c. are all born with some singularity in the conformation of their heads ; either a flatness on the top, two extraordinary protuberances

behind, or one of each side, singularities which we can only regard as an effect of an ancient and strange mode, which at length is become hereditary in the nation. According to the report of many travellers, the operation of compressing the head of a child lengthwise, while it is yet soft, is with a view insensibly to enlarge the interval between the two eyes, so that the visual rays turning more to the right and left, the sight would embrace a much larger portion of the horizon; the advantage of which they are well acquainted with, either in the constant exercise of hunting, or on a thousand other occasions. Ever since the 16th century, the missionaries established in the countries inhabited by the savages of America, have endeavoured to destroy this custom, and we find in the sessions of the third council of Lima, held in 1585, a canon which expressly prohibits it. But if it has been repressed one way, the free negroes and Maroons, although Africans, have adopted it, since they have been established among the Caribs, solely with the view of distinguishing their children, which are born free, from those who are born in slavery.

The Omaquas, a people of South America, according to P. Veigh, press the heads of their children so violently between two planks that they become quite sharp at the top, and flat before and behind. They say they do this to give their heads a greater resemblance to the moon.

AN ACCOUNT OF THE MARBLE MOUNTAINS IN EGYPT.

By MR. BRUCE.

WE saw quantities of small pieces of various sorts of granite, and porphyry, scattered over the plain, which had been carried down by a torrent, probably from quarries of ancient ages: these were white, mixed with black spots; red, with green veins and black spots. After this all the mountains on the right hand were of red marble in prodigious abundance, but

and barbarously ill treat us, because we were not made in their shape; the injustice and cruelty of their behaviour to us would be self-evident; and we should naturally infer that whether we walk upon two legs or four; whether our heads are prone or erect; whether we are naked or covered with hair; whether we have tails or no tails; horns, or no horns; long ears, or round ears; or whether we bray like an ass, speak like a man, whistle like a bird, or are mute as a fish, Nature never intended these distinctions as foundations for right of tyranny or oppression. But perhaps it will be said, it is absurd to make such an inference from a mere supposition, that a man might have been a brute, and a brute might have been a man; for the supposition itself is chimerical, and has no foundation in nature: and all arguments should be drawn from fact, and not from fancy of what might be, or what might not be. To this I reply in few words, and in general, that all cases and arguments, deduced from the important and benevolent precepts of *doing to others as we would be done unto*, necessarily require such kind of suppositions; that is, they suppose the case to be otherwise than it really is. For instance, a rich man is not a poor man; yet the duty plainly arising from the precepts is this—The man who is now rich, ought to behave to the man who is now poor, in such a manner as the rich man, if he were poor, would be willing that the poor man if he were rich should behave towards him. Here is a case, which in fact does not exist between these two men, for the rich man is not a poor man, nor is the poor man a rich man; yet the supposition is necessary to enforce and illustrate the precept, and the reasonableness of it is allowed. And if the supposition is reasonable in one case, it is reasonable, at least not contrary to reason, in all cases to which this general precept can extend, and in which the duty enjoined by it can and ought to be performed. Therefore though it be true that a man is not a horse; yet as a horse is a subject within the extent of the precept, that is, he is capable of receiving benefit by it, the duty enjoined in it extends to the man, and amounts to this,—Do you that are a man so treat your horse, as you would be willing to be treated by your master, in case that you were a horse. I see no absurdity of false reasoning in this precept, nor any ill consequence that would arise from it, however it may be gainsaid by the barbarity of custom.

In the case of human cruelty * the oppressed man has a tongue that can plead his own case, and a finger to point out the aggressor. All men that hear of it shudder with horror; and by applying the cause to themselves, pronounce it cruelty with the common voice of humanity, and unanimously join in demanding the punishment of the offender, and brand him with infamy. But in the case of *brutal* cruelty, the *dumb* beast can neither utter his complaints to his own kind, nor describe the author of his wrong; nor, if he could, have they it in their power to redress and avenge him.

In the case of *human* cruelty, there are courts and laws of justice in every civilized society, to which the injured man may make his appeal; the affair is canvassed, and punishment inflicted in proportion to the offence. But, alas! with shame for man, and sorrow for brute, I ask the question, what laws are now in force, or what court of judicature does now exist, in which the suffering brute may bring his action against the wanton cruelty of barbarous man? The laws of Triptolemus are long since buried in oblivion, for Triptolemus was but a heathen. No friend, no advocate, not one is to be found amongst the † *bulls nor calves* of the people, to prefer an indictment on behalf of the brute. The Priest passeth by on one side, and the Levite on the other side; the Samaritan stands still, sheds a tear, but can do no more, for there is none to help; and the poor wretched, unbefriended creature, is left to moan in unregarded sorrow, and to sink under the weight of his burden.

But suppose the law promulgated, and the court erected, the judge is seated, the jury sworn, the indictment read, the cause debated, and a verdict found for the plaintiff: yet what cost or damages, what recompence for loss sustained? In actions of humanity, with or without law, satisfaction may be made. In various ways you make amends to a *man* for the injuries you have done him. You know his wants, and you may relieve him. You may give him cloths, or food, or money. You may raise him to a higher station, and make him happier than before you afflicted him. You may be feet to the lame, and eyes to

* This term the author uses to express the cruelty of men unto men, and that of *brutal* cruelty, to express the cruelty of men unto beasts.

† Gen. ii. 7.

or unmerited pain. A wise man would impeach his own wisdom and be unworthy of the blessings of a good understanding, if he were to infer from thence that he had a right to despise or make game of a fool or put him to any degree of pain. The folly of the fool ought rather to excite his compassion, and demands the wise man's care and attention to one that cannot take care of himself.

It has pleased God the father of all men, to cover some men with white skins, and others with black skins; but as there is neither merit nor demerit in complexion, the white man (notwithstanding the barbarity of customs and prejudice) can have no right by virtue of his colour, to enslave and tyrannize over a black man; nor has a fair man any right to despise, abuse, and insult a brown man. Nor do I believe a tall man by virtue of his stature, has any legal right to trample a dwarf under his feet. For whether a man is wise or foolish, white or black, fair or brown, tall or short, and I might add rich or poor (for it is no more a man's choice to be poor, than it is to be a fool or a dwarf, or a black or tawny) such he is by God's appointment; and, abstractedly considered, is neither a subject for pride, nor an object for contempt. Now, if amongst men, the difference of the powers of the mind, and of their complexion, stature, and accidents of fortune, do not give to any one man a right to abuse, or insult any other man on account of those differences; for the same reason, a man can have no natural right to abuse and torment a beast, merely because a beast has not the mental powers of a man. For such as the man, he is but as God made him; and the very same is true of the beast. Neither of them can lay claim to any intrinsic merit, for being such as they are; for before they were created, it was impossible that either of them could deserve; and at their creation, their shapes, perfections, or defects, were invariably fixed, and their bounds set which they cannot pass. And being neither more nor less than God made them, there is no more demerit in a beast being a beast, than there is merit in a man's being a man; that is, there is neither merit nor demerit in either of them.

A brute is an animal no less susceptible of pain than a man. He has similar nerves and organs of sensation; and his cries and groans, in case of violent impressions upon his body, though he cannot utter his complaints by speech or human voice, are as strong indication to us of his sensibility of pain, as the cries

and groans of a human being, whose language we do not understand. Now as pain is what we are all averse to, our own sensibility of pain should teach us to commiserate it in others, to alleviate it if possible, but never wantonly or unmeritedly to inflict it. As the difference in the above particulars are no bars to their feelings, so neither does the difference of the shape of a brute from that of a man exempt the brute from feeling; at least we have no grounds to suppose it. But shape or figure is as much the appointment of God, as complexion or stature. And if the difference of complexion or stature does not convey to one man a right to despise and abuse another, the difference of shape between a man and a brute cannot give to a man any right to abuse and torment a brute. For he that made man and man to differ in complexion or stature, made man and brute to differ in shape or figure. And in this case likewise there is neither merit nor demerit; every creature, whether man or brute, bearing that shape which supreme wisdom judged most expedient to answer the end for which the creature was ordained.

With regard to the modification of the mass of matter of which an animal is formed, it is accidental as to the creature itself; I mean, it was not in the power or will of the creature to choose, whether it should sustain the shape of a brute or of a man; and yet, whether it be of one shape or of the other; or whether it be inhabited by the soul of a brute, or the soul of a man: the substance or matter, of which the creature is composed, would be equally susceptible of feeling. It is solely owing to the good pleasure of God, that we are created men, or animals in the shape of men. For he that, *formed man of the dust of the ground, and breathed into his nostrils the breath of life,* that he might become *a living soul*, and endued with the sense of feeling, could, if he had so pleased, by the same plastic power, have cast the very same *dust* into the mould of a beast; which being animated by the life-giving breath of its maker, would have become *a living soul** in that form; and in that form would have been as susceptible of pain, as in the form of a man. And if in *brutal shape* we had been endued with the same degree of reason and reflection we now enjoy; and other beings in *human shape* should take upon them to torment, abuse

† Gen. i. 30, in the margin.

Voltaire, though he leaves the matter in the dark, was well acquainted with the rank and quality of the illustrious prisoner; but even Voltaire, bold as he was in his writings, durst not divulge the secret, as it would tend to bring in question the right which Louis the XVth and his successors had to the Crown of France--- for if the fact be true, Louis the XVth might be considered as an usurper.

The secret of the birth of this son was at first only confided to Cardinal Mazarin, if indeed the Cardinal (which seems not improbable) was not himself the father. On the death of the Queen he was conveyed to the state prison of the Isle of St. Marguerite, and guarded there with all the precaution and respect which Voltaire so particularly describes. It was not, however, a mask of iron, but one of *black velvet*, with which his face was covered. This he was obliged to wear, when in the presence of any one besides the Governor, that his rank and birth might not be discovered by the resemblance he bore to the King his brother.

The precautions taken to conceal him were indeed so great as to shew that there was no common interest in preventing a discovery. The unfortunate prisoner was himself sensible of his pretensions, and acquainted with his situation: but he was undoubtedly made to understand, that it was only on condition of his keeping himself unknown, that he was suffered to continue in existence.

Some princes, in such circumstances, would have had so dangerous a rival cut off: but Louis the XIVth, who, though a despot, was not void of humanity, contented himself with banishing this elder brother to a distant island, and confining him in a strong fortress, situated in a remote corner of his dominions, where, from the measures taken, it seemed impossible that he could ever be heard of or known. Yet to make assurance double sure, after the battle of La Hogue, when the English fleets were riding triumphant in the Channel, he was conveyed from the Isle St. Marguerite to the Bastille.

Cinq. Mars, the Governor, and Louvois, the Minister, were among the few persons in the secret. It is said to have been divulged by Barbesieux, the son of Louvois, to Mademoiselle St. Quentin, his mistress.

A French writer accounts for the ambiguity or silence of Voltaire upon this subject, in the following terms:

“He would have had cause to fear for his own life, if he had divulged a mystery which might destroy the title of the Grand

Monarque to the throne. For the man in the iron mask, being the elder brother of Louis the XIVth, had a right to the Crown of France, notwithstanding his apparent illegitimacy, which was covered by the rule followed in France in all doubtful cases,

Pater est is quem nuptiae demonstrant:
Whence it must follow, that Louis was an usurper, and that his descendents possessed the Crown only by usurpation. That was the truth, which at all times was terrible, which Voltaire did not dare to utter, and which the King strove to wrap up in darkness by every possible means, even the most iniquitous."

THE RIGHTS OF THE BRUTE CREATION TO TENDERNESS FROM MAN.

I Presume there is no man of feeling, who has any idea of justice, but would confess upon the principles of reason and common sense, that if he were to be put to unnecessary and unmerited pain by another man, he would do him an act of injustice; and from a sense of the injustice in his own case now that he is the sufferer, he must necessarily infer, that if he were to put another man of feeling to the same unnecessary and unmerited pain which he now suffers, the injustice in himself to the other would be exactly the same as the injustice to his tormentor to him. Therefore the man of feeling and justice will not put another man to unmerited pain, because he will not do that to another, which he is unwilling should be done to himself. Nor will he take any advantage of his own superiority of strength, or of the accidents of fortune, to abuse them to the oppression of his inferior; because he knows that in the article of feeling all men are equal; and that the difference of strength or station are as much the gifts and dispensations of God, as the difference of understanding, colour, or feature. Superiority of rank or station may give ability to communicate happiness (and seems so intended) but it can give no right to inflict unnecessary

ACCOUNT OF

SHAKSPEARE'S CRAB-TREE.

SHAKSPEARE's bench, and the half-pint mug out of which he used to take very copious draughts of ale at a public-house either in Straford-upon-Avon, or the neighbourhood of that town, are well known to all our English Antiquaries, from their having been long in the possession of the late Mr. James West, by whose descendants I have no doubt they are carefully preserved, and will be long transmitted as heir-looms in the family: but with Shakspeare's CRAB-TREE the Antiquarian Society probably are not so well acquainted.

There has been long a tradition in Warwickshire, that one great dramatic bard was a very boon companion; and the fame of two illustrious bands of good fellows, who were distinguished by the denominations of the TOPERS and the SIPPERS, is not yet extinct in that country. The TOPERS, who were the stoutest fellows of the two, challenged all England, it is said, to contest with them in deep potations of the good old English beverage; a challenge which Shakspeare and a party of his young friends at Stratford readily accepted: but going on a Whitsunday to meet them at Bidford, a village about seven miles distant they were much mortified to find that the TOPERS had that very day (owing to some misunderstanding of the place and time appointed) gone to a neighbouring fair on a similar scheme with that which brought Shakspeare and his friends to Bidford. Being thus disappointed, they were obliged to take up with the SIPPERS, whom they found at that village, but whom they held in great contempt. On trial, however, the Stratfordians proved so unequal to the combat, that they were obliged to yield; and, while they had yet the use of their legs, they set out towards home. Unfortunately, our great Poet's head, and that of one of his friends, not being so strong as that of their companions, they found themselves unable to proceed; and laying themselves down, they took up their rest for the night under the shelter of a large wide-spreading crab-tree. When they awoke in the morning, his friend proposed that they should return to the

place of combat : but, being probably weary of his company, he refused. Farewell, therefore, he exclaimed,

Piping Pebworth, dancing Marston,
Hunted Hilbro', hungry Grafton,
Dodging Exhall, Popish Wicksford,
Beggary Brome, and drunken Bidford !

The rhymes are certainly not so exact as he would have made in his closet ; but, as *field-measures*, they may do well enough ; and the epithets are strongly characteristic of his manner, being peculiarly and happily adapted to the several villages whence the miscellaneous grope of Sippers had resorted to Bidford.

This celebrated tree is still standing, and is known far and near by the name of SHAKESPEARE'S GRAB-TREE ; and the foregoing anecdote was well authenticated by a clergyman, a native of Warwickshire, who died at Stratford, at a great age, above thirty years ago.

THE IRON MASK.

THE mystery which has enveloped the story of the man with the iron mask, whose long imprisonment Voltaire noticed in his age of Louis the XIVth, is now cleared up to the satisfaction of most people in France.

It seems that he was neither the Count de Vermandois, nor the Duke of Monmouth, nor any of the other Princes or Noblemen whose names have been mentioned ; but an elder brother of Louis the XIVth, by Anne of Austria, consort of Louis XIII.

It appears that he was the fruit of an illicit amour with the Queen ; some say with the Duke of Buckingham ; but though illegitimate, and certainly not the son of Louis the XIIth (which no one believes Louis the XIVth himself to have been) he might have raised pretensions to the crown ; as being born in wedlock, there was the presumption of legitimacy in his favour, till the contrary was proved.

fures, and that among that, among the ashes and bones of dead bodies, they have, at different times, found considerable quantities of gold, silver, copper, and precious stones, as well as the handles of sabres, ancient armour, saddle ornaments, bridles, and other horse furniture, together with the bones of animals, and particularly of the elephant.

The court of Russia, informed of these depredations, sent a general officer, with a sufficient body of troops, to open such of these tombs as had not been touched, and, in the name of the crown, to seize on what they contained. This officer, having examined these innumerable monuments dispersed throughout this vast desert, concluded that the largest barrow was, without doubt, the burying place of the prince or chief of some ancient nation. After having ordered a large quantity of earth and stones to be carried away, the workmen found three vaults, constructed of stones very rudely cut. That in which the prince was deposited was in the centre, and larger than the rest; it was easily distinguished by a sabre, a lance, a bow, and a quiver filled with arrows, which were placed by his side. The next vault was close to his feet, and contained his horse, his saddle, his bridle, and his spurs. The body of the prince was stretched out on a leaf of gold, that reached from his head to his feet, and was covered with another leaf of gold, equal in size to the former. It was wrapped up in a rich mantle, fringed with gold, and ornamented with rubies and diamonds. The head, neck, breast, and arms were entirely naked, and without any ornament whatever. The last vault contained the body of a woman, which was distinguished by the ornaments proper to her sex. She was resting against the wall, and had around her neck a gold chain, of several links, enriched with rubies, and gold bracelets round her arms. Her head, neck, and breast were naked. The body, covered with a beautiful robe, but not embroidered, was placed between two leaves of fine gold. The four leaves weighed forty pounds. The robes of both the prince and the princess appeared to be still perfect and brilliant; but they crumbled into dust as soon as they were touched. Search was made also in the rest of the tombs; this one, however, was the most remarkable. A great number of curious things was found in them.

The tombs dispersed throughout the neighbourhood of this plain are probably those of the ancient Tartar heroes, who fell in the field of battle; but we are entirely ignorant of the epoch or history of these events. Some Tartars informed Mr. Bell, that this country had been the theatre of several battles, between

Tamerlane and the Kalmouk Tartars, whom this conqueror in vain attempted to subdue.

To this account we shall add that of Mr. Bell, which is as follows, "About eight or ten days journey from Tomsky there is a plain, containing the tombs of several heroes who have perished in combat. They may easily be distinguished by heaps of earth and stones, with which they are covered. It is not known when, or by whom these battles were fought, in a country lying so far towards the north. The Tartars of Baraba informed me, that Tamerlane, or Timyr-Ack-Sack, as they call him, had in these places fought several times against the Kalmouks, without being able to subdue them. Many people from the neighbouring places go to these tombs every summer, where they dig up the earth, and find gold, silver, copper, precious stones, the handles of sabres, and various pieces of armour, as also horse furniture, saddles and bridles, with the bones of horses and elephants, from which it appears that when a general, or any other person of distinction died, his arms, his horse, and his equerry, were interred in the same tomb with him. This custom still prevails among the Kalmouk and other Tartars, and appears to be very ancient. It is easy to judge, from the number of these tombs, that several thousands of men must have perished on these plains; for though the inhabitants of the environs have dug there for many years, they still find new ones. It is true that those who search for treasures here are often interrupted in their work, and plundered by the Kalmouks, who cannot suffer the ashes of the dead to be disturbed.

"I have seen several pieces of armour and other curiosities taken from those tombs, and among others the equestrian figure of a man, armed cap-a-pie, which was of cast metal, and formed with great art. I have seen also the figures of some deer, made of fine gold, which were cleft in the belly, and pierced with several holes. These, perhaps, were used for ornamenting quivers and horse furniture.

"Whilst I was at Tomsky, one of the people who had been employed in searching these tombs told me, that he once discovered an arched chamber, in which he found the skeleton of a man, lying upon a silver table, with his bow, arrows, and lance placed by his side; that the skeleton crumbled to dust as soon as it was touched, but that the table and the arms were worth a considerable sum."

small. Each lot is likewise numbered, and the numbers are drawn by the merchants out of a golden or silver basin. This being finished, the whole amount of each lot is reckoned up according to a table of the current prices lying before them, and a proper deduction at the same time is made for defects; in one beast, perhaps, a nail, of which when the number is complete there are eighteen, being wanting on the foot; another having a cleft or ragged ear; another again a short and stumpy tail, &c.

In the course of these transactions, the Secretary and his Clerks never meet with the least contradiction or opposition of any kind from the merchants, as these former are known to be thoroughly acquainted with the current prices and the customary abatements. This business being finished, and the respective sums of money, which have been previously paid into the Company's coffers, being counted over, the Governor, by way of conferring a particular honour on the merchants, after having sprinkled them with rose-water from a golden font, presents each of them with a nosegay with his own hand; and orders his porter, who is a native of the country, to rub them with powder of sanders-wood. In return, and by way of shewing their deep sense of the honour done them, the merchants make each of them a low bow: and in this manner the fair is finished. In some years above a hundred elephants have been sold at once; by which the Company has been a great gainer: for one of these animals, that is twelve feet high and has no blemish, and at the same time has two tusks of an equal size, will fetch above two thousand dollars.

The decoy elephants are never sold; and throughout the whole island, none are used for this purpose but such as are blemished. The natives of the country never buy any elephants, as they cannot make use of them. And the purchasers of them come from other countries, where these animals can be of more service. One of the uses to which they are put, is to keep up the state and pomp of the nobility, who have always one or two of them standing before their palaces. These yeomen of the guards are generally clad in a costly covering of tapestry; and their tusks are tipped with gold or silver, set round with jewels.

They are likewise used for the purposes of war, by the inland princes, in which case they are generally brought into the field coupled together, and having chains fastened to their trunks. The Indians are wont with this view to make them furious,

and almost mad with a drink prepared from amfium, so that they are afraid of nothing that can possibly be opposed to them: and they have this advantage, that neither darts, nor even bullets from small arms, have the power to wound them. This animal is likewise made use of as the public executioner; and it must be owned, that he performs this office to perfection, when he is properly educated for it. He usually executes his commission by taking the criminal (supposing this latter to be condemned to death) up with his proboscis, and throwing him up in the air, in which case he catches him on the point of his tusks, and thus makes an end of him. But if the malefactor is not decreed to suffer torture, he then lays him down on the ground, and with one of his fore-feet treads him to pieces at one smash. When the sentence does not amount to death, he then takes the criminal, and tossing him up in the air, gives him a fair fall without interposing any farther: in this case the poor delinquent sometimes gets off safe and sound; but it is an equal chance if he is not a cripple for life. This animal is likewise used for labour. He is made to drag the heaviest pieces of timber fastened to one of his hind-legs: and, in general, to carry on his back all kinds of heavy burthens.

He is also frequently made use of for riding. I have myself made some trials of him in this way; but cannot say that I experienced any pleasure in it, as by his sideling way of going he jolts one excessively."

ACCOUNT OF SOME ANCIENT TOMBS FOUND IN THE
NORTH. BY MR. PAUL DEMIDOFF.

TH E Russians, in constructing a road from their country to China, discovered, in the fiftieth degree of northern latitude, and between the rivers Irtych and Obalek, a very extensive desert, covered in many places with tombs, or barrows, which have been mentioned by Bell and several other travellers. This desert is situated at the southern extremity of Siberia. It is said, that the inhabitants of the neighboring country have, for several years, searched here for hidden trea-

and tumult, than those which are set on foot by our Princes and great people in Germany, as neither dogs nor fire arms can be used here. But what is most to be admired in all this affair is, the great boldness of the huntsmen, who know how to manage this animal, in itself so terrible, as readily as a skilful huntsman in our country manages his hounds. These kornacks, or huntsmen, have a trifling pension; but the country fellows that help to drive the elephants together, have only that one day taken off from the number of days on which they are obliged to labour (as vassals in ordinary services).

II. Another method of taking these animals, is that which is practised (in the countries respectively subject to them) by the orders of the seven tributary Princes. They have pits, some fathoms deep, in those places whither the elephant is wont to go in search of food. Across these pits are laid poles, covered with leaves, and in the middle baited with the food of which the elephant is fondest. As soon as he sets eyes on this, he makes directly towards it, and on a sudden finds himself taken unaware. His new situation at first sets him almost mad; at length, however, he becomes cooler, and bethinks himself what he shall do in these disagreeable circumstances. Accordingly, having first thrown from him the materials of his snare, which had fallen in with him, he makes some endeavours at getting out; but finding himself too heavy to accomplish this, he cries out for some of his own species to come to his assistance. At length he sees some of them coming towards him, and flatters himself that they are come to help him out. This, in fact, they do; but, being of the tame domesticated kind, as soon as they have pulled him out by means of ropes, they make him prisoner, and deliver him up into the hands of their leader. If he appears discontented at this treatment, and endeavours to regain his liberty, he gets well threshed; and is disciplined in this manner, till he submits with a good grace to be fettered and led any where, just as his driver pleases. That he may be got out the easier, the pit is made rather shallow, and shelving on one side, so that he can in some measure help himself out: otherwise it would not be possible to draw out such a large and heavy animal, without doing him some damage.

III. The third and last species of capture, is that practised by the Moors (as they are called in those parts, from their following the doctrines of the Koran) who by these means are enabled to pay their rents to the Lords of the Manor, the Dutch

East-India Company. It consists of the following manoeuvres: in times of drought, when the elephants, being in want of water, are used to haunt certain particular spots, where they know they shall find water to quench their thirst, these people (a strong and hardy race of men) go a hunting in parties, consisting of four men each, accompanied by some stout young lads, their children, whom they have brought up to this business; and in this manner search the wood through, till they have found a herd of elephants. Having attained this point, they pitch on the largest of these animals, and keeping continually hovering about him, endeavour to get him away from the rest. The elephant, on his part, wishes for nothing so much as to get rid of these troublesome visitors, and accordingly strives to drive them out of the wood. On the other hand, the boldest and most expert of these fellows, with an ebony stick which he carries with him, about two feet long, begins a sham fight with the elephant, who bangs the stick heartily with his proboscis. But the Moor parrying the strokes, and taking care to avoid coming to close quarters, by leaping nimbly from one side to the other, the elephant grows extremely angry, and does every thing in his power to disarm this strange fencing master, and take his life. But besides this more adventurous enemy, he finds he has two more to cope with, one on each side of him: and while he is engaged with these, a fourth comes behind him, and watching his opportunity, throws a rope, made into a noose, round one of his hind-legs. At this instant, the lads, knowing that the animal has work enough cut out for him before him, and that his whole attention is taken up by the stick, approach him with the greatest boldness, and fastening the noose as quickly as possible round his leg, drag him on till they find a tree fit for their purpose, to which they fasten him, and let him stand. In the mean time two of the men run home, and bring a tame elephant, to which having coupled the wild one, they lead them together to the stable.

By one of these three methods are all the elephants taken in Ceylon. There is a sale for these animals in the kingdom of Jassnaptnam every year in the month of July. The merchants of the coast of Malabar and Bengal are invited to it by advertisements, in which the size and sex of the animals that are put up to sale are specified. On the appointed day, all the beasts are brought into the market, distributed into certain lots, each lot containing the different sizes, great, middling, and

ing wild on the spot, and partly planted there for the purpose. These trees stand very close and near to each other; and where there is any gap, very strong palisades are brought to fill it up, so that the elephants cannot by any means get out. As soon as the hunters have given information that they have discovered a tolerable numerous troop of elephants, the principal people of Ceylon are obliged to bring together several thousand men. By means of these, the whole drove, thus inclosed, is driven slowly towards the first opening of the korahl, that takes up an enormous space. When they have got them thus far, the game is, as it were, in their hands. The whole train of huntsmen and country people now unite, and draw up close into this opening, and making a great noise and uproar, as well by their cries as instruments, which they carry with them for the purpose, they contrive to get the elephants, who keep together in one drove, like a happy and peaceful family, into the smaller space, which is called the *sporting korahl*. Here there is likewise formed a palisadoe (as it were) of six or seven thousand men, who make a large fire, and at the same time an intolerable din with shouting, drumming, and playing on the hautboy of that country, so that the elephants are frightened; and, instead of going backwards, move forwards towards the smallest space, called the *forlorn hope*. This strait is closed likewise with a large fire, and a great clamour is made as before; by which means, the elephant being seemingly stunned, as it were, looks round about him, on all sides, to see if he can obtain his freedom, which he hopes to arrive at by means of his bodily strength. He tries each side of the korahl's fence, but finds, that with his strong trunk he is not able to fell the stout trees that are planted there; in consequence of which he begins to be in a passion, inflating his proboscis with all his force. He now observes that the fire comes, nearer and nearer to him; accordingly he ventures into the small outlet of the korahl, and seeing the tame elephants stand at the end of it, imagines that he has at length obtained his freedom. This narrow passage, through which one of these animals only can pass at a time, is covered at top; on this top are placed some expert huntsmen, who drive the elephant to the end of the passage with a stick, to the top of which is fastened a sharp-pointed hook. As soon as they have got him here, they take away the beams which close the end of the passage, and leave the opening free. Now the elephant rejoices like a prisoner just broke out of his confinement. Accordingly he takes a

pretty large leap, but just at the moment he finds, standing by his side, the two tame elephants (*bunters*, and more commonly *crimps*), who oblige him to stand still, and keep him fast between them. If he refuses to stand and be obedient, they begin to discipline him with their trunks; and by their master's orders, thresh them with these flagellatory instruments in such a manner, that from the mere pain he is forced to evacuate the contents of his body. Now, when at length he finds that he cannot escape from the power of these unrelenting beatings, he gives the affair up, and with a good grace allows himself to be led to a tree at a small distance, to which he is bound by the hind-leg with a stout thong of untanned elk or buckskin, and here they leave him and take the tame animal's back again. When one of these beasts has thus been led out of the *korahl*, the others follow more willingly, being all in hopes of obtaining their liberty, as they have seen nothing to make them suspect the fate of the first that went out. When the hunt is quite finished, all the elephants are seen fast bound to trees. In that manner they are to stand several days, being all the while kept low in point of food, in order that they are not now their own masters, but subject to the will of others. Attendants are placed by the side of each other, who give him his food by little and little, to the end that he may learn to distinguish, and grow acquainted with mankind. At first he looks very sour on an attendant of this kind; in the course of a few days, however, he becomes more resigned to his fate, and allows the former to come near him and handle him. He likewise soon comes to understand what his governor says to him; and even suffers a strong rope to be thrown round his neck; with which rope he is coupled to a tame elephant, and so led into the stable. This is performed in the following manner: A tame elephant has, on either side of him, a wild one; and, if he is of a great size, he has even two smaller ones on each side. The *kornack* sits on the tame animal with his sharp-pointed hook, with which he turns the creature by the head the way he would have him go, and thus leads his captured elephants to their stables, in which are driven down stout poles or trunks of trees. To these they are fastened by the hind-leg, at some distance from each other, so that they cannot come together; and they are suffered to stand, being fed daily with cocoa-nut leaves, and once a day led to water by the tame ones, till the proper time arrives for taking them to market and selling them. It is easy to imagine, that this kind of hunting is attended with more trouble, noise,

"I have chosen you to be an authentic testimony of my greatness. It is even in the weakness of your sex that I will display my power."

Immediately, by virtue of a divine cap which he puts on her head, he infuses into her a knowledge of theology; makes her acquainted with all the subtleties of the schools; inspires her with the talent of disputing categorically, and bestows upon her such a share of assurance, that she is able to silence the most obstinate antagonist, as well as the most subtle philosopher. Jesus then disappears. Catherine, filled with that courage which the presence and conversation of the Saviour infused into her soul, and burning with a desire to attack all the doctors of the university, goes and asks the vacant chair from the governor of the city.

These two acts must prove highly interesting to the audience; but lest they should not perhaps have the same effect on the reader, we shall proceed to the last act of the piece.

In the last act, St. Catherine is seen seated in the professor's chair, disputing with great eloquence against all those who dare encounter her. The cap performs wonders. Around her stand a number of doctors, in gowns trimmed with furs, whose pride, soon humbled, gives place, though with reluctance, to jealous admiration. Catherine, however, is not entirely triumphant. An old doctor arrives, pale visaged, and almost bent to the earth, whose presence revives hope in the hearts of the vanquished. Every eye is fixed upon this old champion; but nobody knows him. He is, indeed, no other than the devil—a being ever ready to thwart, in every thing, the designs and power of our Saviour.

He approaches slowly, with a large pair of spectacles on his nose, an evident testimony of his great ability; his long robe sweeps the hall; but it is too short to cover an enormous tail, which he in vain attempts to conceal. Satan is now known; and the whole assembly wait with equal impatience and fear to see the issue of a combat, from which they dare not hope that Catherine will extricate herself with too much honor.

The cautious demon advances, and a thesis is presented him, "on the immortality of the soul." This he denies, and supports his assertion with great art and address; but Catharine after having suffered him to run on for some time, at length silences him by the following argument: "Orpheus went down to hell, therefore the soul is immortal." Behold the devil foiled! the whole assembly testify their applauses, and a thousand voices repeat, "He is confounded! he is confounded!"

The poor devil is now hissed and hooted at, and obliged to fly from the hands of the enraged multitude, who pursue him with great fury.

The company then proceed with much triumph to install Catherine into the distinguished and honorable office of Professor in Theology, and the ceremony concludes with a grand ball, at which all the citizens of Alcala dance, together with their wives; and they oblige all the members of the University to dance along with them.

CURIOUS ACCOUNT OF CAPTURING ELEPHANTS.

Curious Account of the different Methods of capturing Elephants; together with the uses they are generally put to; from the Life and Adventures of John Christopher Wolf, late principal Secretary of State at Jaffnapatman, in Ceylon.

JOHAN CHRISTOPHER WOLF, it appears, set out in the early part of life, with a shilling only in his pocket, and without either friends or education, raised himself by patience, industry and an inviolable attachment to truth and secrecy, to a situation equally affluent and honourable. His curious and adventurous turn, which set him first afloat on the wide ocean of the world, remained with him throughout life. He was employed either in active pursuits or in curious observation. What struck him he naturally convinced would strike others; and he therefore committed it to writing for their information and amusement. His narrative carries in it all the marks of a plain man of low education, but of natural integrity and rectitude.

Some of this author's reports border upon the marvellous; but as the following particulars concerning the elephant are curious, we shall here insert them for the amusement of our readers.

"A certain korahl* has been used for these many years past, in which most of the elephants in Ceylon are caught. In order to have some idea of this korahl, you must imagine to yourself a large fishing-net, with two flaps standing out wide from each other, and terminating in a bag. Now this snare consists of a collection of stout and vigorous trees, partly grow-

* The word means, in the language of Ceylon, "Tois for elephants."

Of the translations of Madame du Boccage something more must be said. Lord Chesterfield's opinion, as it is written to another Lady, will not be suspected of flattery. Speaking of Voltaire's absence from France, he thus writes: 'You have so many wits at Paris, that you will not miss him. The very Ladies supply the loss of him. Madame de Graffiny's ^{*} pathetic play is excellent in its kind; and I assure you Madame du Boccage's Milton has great merit. She has abridged it considerably, but with judgment; and her Translation of Pope's Temple of Fame is amazingly accurate.

But an abridgement of Milton may startle the fond admirers of that superior genius. Let us hear our fair Author herself: 'Desirous of gaining the applause of my country, in conforming to its taste, I have not been apprehensive of being reproached by the English for the alterations I have ventured to make in a Poem which they hold in such veneration. Notwithstanding the admiration with which the Iliad has been read in every age, the Critics have found repetitions and too long descriptions in that divine Poem. The French have imagined the same defects in the Paradise Lost; and Mr. Pope, although an admirer of the great beauties of this work, has had the hardiness to express himself thus:

Milton's strong pinion now not Heav'n can bound;
Now, serpent-like, in prose he sweeps the ground;
In quibbles Angel and Archangel join,
And God the Father turns a school divine.

Imit. of Horace, Epist. I.

Upon this authority, I have much abridged the Description of the Combat of the Angels, which appeared to me to be too highly coloured to be copied by my feeble pencil; and I have thought it requisite to retrench, as foreign to the subject, the comparisons drawn from the Pagan Mythology, the Pastimes of the Infernal Spirits, and many other passages. A grand and sublime picture I have endeavoured to copy in miniature. In diminishing the features, and contracting them within a narrower space, they are sometimes very sensibly weakened, and with their proportions, their resemblance also is too often lost. If I have succeeded in presenting, in one agreeable point of view, the charm and the interest with which the Author has depicted the felicity and the misfortunes of Adam and Eve in their ter-

* Author of 'Lettres d'une Peruvienne.' She died in 1758.

restrial Paradise, my end has been obtained. I pretend not, however, to have given a complete idea of the prodigious genius of Milton, of which those who do not understand English may form a more adequate conception by consulting the elegant translation of M. Dupre de S. Maur."

We will not examine the objections which Madame du Bocage and the French Critics have urged against the Paradise Lost. Whatever weight they may have, our amiable Poetess writes with becoming modesty and diffidence. Her imitation is undoubtedly elegant, and she has done as much justice to her subject as the French language will allow. But after all, if she is below the grandeur of her original, it may be asked what imitation, how excellent soever, can do justice to such an Author, or give an adequate idea of what Algarotti terms, '*la gigantesca sublimita*,' the gigantic loftiness of Milton.

CURIOUS ACCOUNT OF A SPANISH PLAY.

THE Spaniards, that is to say the illiterate part of them, are firmly persuaded that St. Catherine taught theology in the University of Alcala. To doubt of a fact so well authenticated, would be to expose one's self to the fury of the Inquisition.

The first act of this piece is taken up with the funeral ceremonies of a professor of theology at Alcala. The university attend in a body, to give public testimony of their grief, and the professor's funeral oration is pronounced with great gravity. Next come a troop of students, who form a kind of dance, in which some of them represent the Virtues and others the Vices. This is not at all surprising upon a theatre, where, in another tragedy, the twelve peers of France, with the Emperor Charlemagne, are introduced, the Cardinals of the sacred college, and sometimes his Holiness himself.

The second act commences with an interview between St. Catherine and the Saviour of the world. "Catherine, my girl," says Jesus, "do you know me?" "Ah! Lord," replies she, "though my eyes should not be able to know you, can my heart not know you?" "Catherine," returns Jesus, "I

Florence, Cortona, and the Arcades, were proud to enroll among their members a female who made such a figure in the Republic of Letters. At her reception in the latter, many Princesses and Cardinals, with many of the literati, did her the honour to be present. In her letters she mentions these honours with the charming consciousness of real but unassuming worth; 'Trembling, and with a faltering voice,' says she, 'I endeavoured to express my gratitude in verse*. I was the Saint of the day. The worthy Secretary of the Academy, the Abbe Morei and many others, vied with each other in praising me with all the exaggeration which the Muses permit. The young Prince des Ursins pronounced with equal elegance and success some Latin verses of which I was the object. His sister, the Dutchesse d'Arce, also repeated some Italian lines that were far better than the subject; and she paid me a compliment very witty and very elegant indeed for a pretty woman of sixteen. On venturing to tell her father, that her daughter was the Goddess of Rome; 'No, Madam, answered the young beauty, who happened to over-hear me, 'the Romans ever took their Deities from among strangers.' I was at a loss for a happy reply. Certainly Flattery is solid food: they nourish me with it, and it wonderfully improves my health.'

Madame du Boccage finished this tour by a visit to Voltaire at his Castle of Ferney. This great man was happy to patronize her, as was Fontenelle, the only Author of reputation with whom he had not been at variance. The latter called her 'his daughter,' and under that appellation, had recommended her when in London, to Mr. Folkes, then President of the Royal Society. But Voltaire made her the theme of one or two poetical effusions. With his Tragedy of Semiramis he sent her in 1747, the following lines:

TRANSLATION.

I rashly vow'd to sing one day
 The graces, wit, and art divine,
 That can with such resistless sway
 Phebus and Venus' charms combine.
 Curious each object I descry,
 This blendid excellence to find;
 No other could attract my eye,
 No other could delight my mind;
 Till Du Boccage appear'd in view,
 When to all search I bad adieu.

* Je begayai en tremblant un remerciement rime.

At another time, being at Lyons, on her way to Italy, she wrote to Voltaire in Italian, that, on account of being invited to be present at the ceremony of the Doge's marriage with the Adriatic sea, she could not then visit his delightful retreat. To this the Bard returned the following answer, which, being written in three languages, delicately complimented her on the ease with which she had acquired the English and Italian:

TRANSLATION.

You, who on Parnassus reign,
Go to the Capitol, and gain
The Poet's high unfading praise,
Petrarco's myrtle, Tasso's bays.
Could they, illustrious, live again,
To you would they devote the strain;
Charm'd by the magic of your eyes
And numbers that immortalize,
Both at your feet would vanquish'd die,
Victims to love or jealousy.

And so, Madam, after you have seen the cornuted husband of the Adriatic Sea, you will behold the Father of the Church, and you will be crowned in the Capitol by the hands of the good Benedict. When you have received the poetical crown of the holy Catholics, you are to return by the way of Geneva, and triumph among the Heretics. But though your journey be intirely in the career of glory, you will not forget, in your ample flight, to touch at our happy but humble habitations. The uncle and the niece*, affectionately kiss the hand that has written so many beautiful things, and recommend themselves to your goodness with all possible attachment. — Good journey, Milton's daughter, Camoen's sister. — Depend upon it, Madam, that we shall never forgive you for not having taken the route of Geneva.

Such were the honours that this illustrious woman received and such the happiness she enjoyed, till the year 1767, when she was deprived of her husband, who died on the 20th of August. This Gentleman, who, as we have before observed, was equally devoted to the Muses, distinguished himself by some excellent translations from the English. Since that period Madame du Boccage has chiefly resided at Paris.

* Madame Dennis.

dame du Boccage, 'is really a curiosity. For nineteen years he has never laid aside his robe-de-chambre. The apprehension of being poisoned renders him absolutely savage ;' but on the recommendation of my Lord Chesterfield, who assured him, that in no respect whatever I resembled a Brinvilliers,* he condescended to receive me. I arrived then in his fine garden. I was richly dressed. The Hanoverian Minister, who had given me his hand, questioned much whether the Baron would appear. At that instant he issued from his grotto with a ferocious air, which softened, however, as he approached. My benign figure inspired him with complacency. 'Muse,' said he, 'the idea I had formed of your features does not resemble you. What! has not study withered your charms? What an agreeable surprise !' He crowned this gallantry by repeating half my 'Amazons by heart. 'Your tragedy in the Greek taste,' he added 'charms me, Madam, by the simplicity of the subject. You may imagine, that in my answer I attributed this partiality to the powerful countenance of my Lord Chesterfield. He then desired me to be seated, and, standing at a distance, astonished me by his memory, his volubility, his extensive knowledge of ancient and modern literature in almost every language, and his perfect acquaintance with our numerous and most trifling productions. I heard him about an hour, and then took my leave.'

On her return to France, Madame du Boccage found that Lord Chesterfield had not forgotten his obliging professions of esteem. That Nobleman sent her the busts of our four great Poets, Shakespeare, Milton, Dryden, and Pope. This flattering mark of attention to her his Lordship preceded by a letter, from which we cannot but select the following passage : "How, Madam, can I ever repay the pleasure you have procured me, not only by the books you have sent me, but still more by the letter you have honoured me with ? At least I think I have hit upon an expedient to acquit myself, and that is, by sending you four Ambassadors to make you an apology in my name ; though, by the way, their own names are far beyond mine. They are Shakespeare, Milton, Dryden, and Pope, the ornaments of our nation, who, if they knew you, would

* The Marchioness of Brinvilliers, a wretch, who, associating with an abandoned man, formed a kind of science of poisoning, and was executed at Paris in 1679, after having been convicted of the murder of her father, two brothers, and a sister.

esteem it an honour to be placed in your house. You will find them there on your return to Normandy. They set out next week for Dieppe. I beg you will shew some kindness to Dryden, who is jealous of the preference you have given to Milton and Pope. You may give Shakespeare what reception you think proper, as he sometimes deserves the best, and sometimes the worst. When Madame du Boccage found the busts at Dieppe, she returned an answer to his Lordship, from which we select the following passage: 'I waited, my Lord, till my return to this place, to thank you for the invaluable present you announced to me while I was in Holland. I should hope that your great men would teach me to answer one of themselves, who knows better than any one how to value them, and who to their literary merit unites that of the Statesman and Citizen of all nations. In this idea I severely reproached these celebrated busts for having crossed the sea unaccompanied by your's. Ye illustrious dead, said I, to your busts I would prefer the representation of that illustrious living character who sent you. His features would continually awaken my recollection of his goodness, with the hope that one day I might again enjoy the charms of his conversation.' Lord Chesterfield continued to correspond with this amiable Lady; and several of the letters which he sent to her now appear in his Miscellaneous Works published by the late Dr. Maty. To her countenance, moreover, when at Paris, he strongly recommended that favourite son, whose slender attainments in what his Lordship deemed the only essential objects of cultivation, with his premature dissolution, evince the vanity and folly of all education, that has not in view the improvement of the heart, and the acquisition of that happiness which only Innocence and Sincerity can render permanent.

In the beginning of the year 1757, Madame du Boccage made a tour into Italy. During this journey, the Alps, the Appenines, Vesuvius, and a thousand other objects the most propitious to Poetry, successively inspired her Muse. Nor was she less distinguished in this feat of ancient arms and arts, than she had been in that happy island, where Liberty has so long fixed her favourite abode. At Rome, where she resided several months, she was caressed by Pope Lambertini* and his worthy friend the Cardinal Passionei. The Academies of Bologna,

* Benedict XIV. to whom she dedicated her Columbiad.

MEMOIRS of the Life and Writings of Madame Du Boc-
CAGE.

THE Ladies have not always reflected how much they de- grade themselves, when they aspire to no higher merit than the fugitive charms of beauty. Infinitely more is requisite to afford those delights which we naturally hope from their society, and to secure an attachment to their persons when their first attractions are no more. Among intelligent beings the intercourse of society ought not to be limited to an insipid commerce of unmeaning flattery and corrupting insincerity; for, when women unite a solid understanding, with a heart innately good, and cultivated by virtuous learning, to the native charms of person, and the acquired accomplishments of the sex, they become the brightest ornaments of society, and the sweetest consolation of life. In the conversation of such women every thing is interesting, and receives those delicate touches, which they alone are capable of giving. Such companions open and expand our understandings, divest us of rusticity, and teach us a certain elegant ease that can never be acquired in the college or the closet.

In our own country we are happy to know some bright examples of female excellence. Among these the names of a Carter, of Montague, a Barbauld, a Seward, &c. are eminently illustrious. But, while we pride ourselves in these, we are obliged to confess, that in France the instances of female genius are much less uncommon; for, in that country, not less than four hundred women, some of them of very high birth, have been renowned for literary talents. In this brilliant assemblage, not the least distinguished is Madame du Boccage, the subject of these Memoirs.

This celebrated Lady, whose maiden name was Marie-Anne le Page, was born about the year 1720, at Rouen in Normandy. Her beautiful person, and amiable character, soon attracted a number of admirers. But the man of her choice was Monsieur Joseph du Boccage, a native of the same province, in which he enjoyed an office of considerable emolument. Attached like herself to literary studies, their life was blessed with all the happiness that could be derived from a perfect conformity of taste and inclination, an easy fortune, and universal esteem. They resided chiefly at Paris, and were mostly employed in their favourite amusement, the cultivation of letters.

Madame du Boccage perfectly understood the Latin, English, and Italian languages. This enabled her, besides the effusions of her own happy imagination, to enrich her country with translations of uncommon merit. Her capital work was 'La Collumbiade, ou la Foi portee au nouveau Monde,' an epic poem in ten books, of which the great Columbus was the hero. The productions of her dramatic Muse were an Opera and 'Les Amazones,' a Tragedy. Among her smaller pieces, some were honoured with the prize given by the Academy at Rouen. Her principal translations were 'Le Paradis Terrestre,' an imitation of Milton, in six books, and 'The Temple of Fame,' of Pope. These various efforts of a female Muse naturally exalted her into universal estimation.

Not content, with a purer mind, to be the Sappho of France, our beautiful Poetess did honour to her country as an amiable and enlightened Philosopher, by travelling into other nations, attentive to their various manners, and communicating her lively and instructive observations in a series of Letters which were afterwards published in French, and translated into English. These Letters were written to her sister, Madame du Perron, the widow of a Counsellor of the Parliament of Rouen. They contain a curious and entertaining detail of every object that could interest an inquisitive and intelligent mind, in England, Holland, and Italy, which she successively visited.

Her first voyage was to England in the beginning of the year 1750. She was accompanied by her husband, who appears to have been equally happy with herself in the reception they met with from persons the most distinguished for rank and wit. Lord Chesterfield shewed them uncommon civilities during their stay in England, and his example was followed by the Duke and Duchess of Richmond, Lord and Lady Hervy, Lady Allen, Mrs. Cleland, Mrs. Montague, and many more. The late Prince of Wales came one morning incognito to the house of Lady Schaub, in order to breakfast with Madame du Boccage. He was delighted with her conversation; and, by his express desire, she was presented in form to his royal consort. On the departure of our Poetess for Holland, in June 1750, Lord Chesterfield strongly recommended her to several persons of distinction and particularly to the Baron de Kreuningen. This Nobleman, who was living in 1779, to great singularities united great knowledge and great parts; and her interview with him she relates in an agreeable vein of pleasantry: 'The Baron,' says Ma-

VIII. ANIMALS.

Hens and turkies are most exposed to the effects of frost; several hens lost their legs; which did not, however, prevent them, after the thaw, from laying eggs; they supplied the loss of their legs by employing their knees in walking. In general, the cows and horses suffered little, being well fed and kept warm.

Extract of a letter from MADAME NECKER to Dr. PERCIVAL, of Manchester, dated Versailles, March 9, 1789.

TRANSLATION.—“Your wishes for the suppression of the trade in Negroes are not more ardent than mine. The English have many treatises upon the subject; and nothing, I think, ever did more honour to their nation. But a general concurrence of all the European governments being wanting to effectuate the abolition, the wishes of individuals have been hitherto rendered fruitless. I can answer for the heart of M. Necker; a heart which embraces the whole human race, and which knows no greater felicity upon earth, than that of contributing to make their lot more comfortable; but he is a minister of state; and he must endeavour to give consistency to his various duties, and to consider the good of France before that of Africa. For my own part, who judge of things only by sentiment, and am accountable only to my heart, I turn my thoughts incessantly towards a revolution, without which, it appears to me, we can never hope to be Christians, nor even to be men; or, to speak plainly without which, we may be justly compared to bears and tigers, which roam the forest.—Continue, generous English, to set the example of all the good which is done in the world. And may we be always your rivals, and never your enemies!”

In the course of correspondence with MADAME NECKER, the following answer was returned to these observations:

“Permit me again to solicit your influence with M. NECKER, in behalf of the poor Negroes. The terms in which

you state his comparative obligations towards France and Africa are not strictly accurate. A great minister is responsible for the *honour* and *probity* of the people, whose affairs he directs; and no end, however legitimate, ought to be pursued by unjustifiable means. But in nations, as amongst individuals, there subsists a high and magnanimous, as well as a sordid and ignoble interest; and whenever these are in competition, there can assuredly be no doubt about the preference. With regard to the traffic in the human species, I trust it will appear, that policy and profit are light in the balance, when weighed against humanity and rectitude; and that they will, eventually, on a more enlarged view, be found to be perfectly compatible."

There is reason to believe M. NECKER would have employed his most strenuous exertions in the abolition of the slave trade, if the distractions of France had not driven him from the helm of government. The Rev. Dr. Frosard, author of an admirable work, entitled, "*La Cause des Esclaves Negres et des Habitans de la Guinee portee au Tribunal de la Justice, de la Religion, de la Politique*," published at Lyons in 1789, thus expresses himself in a letter to the writer of this article: "My work has received very flattering tokens of approbation from M. and Madame Necker. They have both thanked me in the most honourable manner: and the letter of this excellent minister gives me assurance that he will enter on the business of the abolition of the slave trade as soon as the establishment of affairs in France will permit."

M. Turgot, who was comptroller of the finances of France in the years 1774, 1775, and 1776, and who is universally allowed to have been a man of pre-eminent talents, and of the most comprehensive views, proposed it, as one object of his administration, to suppress the traffic in the human species. The Marquis de Condorcet records the following fact concerning this enlightened minister: "A merchant desired to give the name of Turgot to a vessel, intended for the negro-trade. With the indignation of a virtuous mind, that could not be familiarized to a crime from the habit of seeing it committed, M. Turgot rejected the offer; and he was not afraid, by this refusal, of declaring publicly his opinion, at the risk of exciting against him all those who considered the promotion of their fortune as connected with the continuance of this infamous traffic."

December). This period was attended with considerable injury to animals and vegetables; some of its effects, taken from observation, we shall proceed to enumerate.

I. THE VINE.

The effects of the frost on the vine were perceptible from the different colour of that part of it, which was under the snow, from that which was above, from the withered state of the stems, and the colour of the juice, which was black. What is remarkable, the young and slender vines suffered less than the old, which were taller and stronger, and even than those which were grafted. In spite of the precautions which were taken in spring to give them air, there were but few clusters produced; the frost had seized the aqueous part of the vine, and at the moment of thaw, from the improper combination of the water with the spirit of the vine, there was occasioned a decay in the quality and colour.

II. FRUIT-TREES.

It was remarked that young trees, whose bark was smooth, suffered less than old trees, whose bark was rough; from which it was concluded, that the congealed water fixed in the cavities of the bark had occasioned all the injury. It was remarked that the bark of the frozen trees was black, and the wood of a yellow colour; the body of the tree and the branches were injured in several places: no means that were employed to remedy the effects of the frost completely succeeded. Several trees did not flourish, and were absolutely dead; others produced a few buds that were soon destroyed; some trees produced flowers and fruits, which fell in summer, the trees themselves withered, and some brought their fruits to maturity, but are expected not to survive autumn. Some trees were saved by cutting them very short, or by making incisions in the bark. Those which suffered most were the walnut-tree, the winter pear-tree, the apple-tree, part of the peach-trees, and the fig-tree; those which suffered least were the plum-tree, the apricot-tree, the cherry-tree: those were most damaged which were exposed to the south.

III. FOREST-TREES.

The effect of the frost on the forest-trees has been to rend

them, which occasioned the loss of a considerable number. Those which suffered most were the oak, the ash, the elm, the linden-tree, the filberd.

IV. FOREIGN TREES.

These are but little cultivated in this country. It was remarked that the trees always green, as the laurel, lost their leaves; those called *Les Arbres de Judée*, and the toxicodendron, withered, both trunk and branches, but the roots produced new stems.

V. GRAIN.

The grain did not suffer where it was covered with snow, and the harvest was sufficiently plentiful from Champagne to S. Quentin, where the snow had fallen two days after the frost: no grain was hurt except what had been sown late. But from S. Quentin to Flanders the snow did not fall till three weeks after the frost, which made astonishing ravages in almost all French Flanders, and a good part of Artois. The winter-barley, and the corn sowed late, were entirely lost. After the thaw winter grain was sown on the former seed, in order to preserve what the frost had spared: this last seed quickly sprung up. In strong and rich lands winter-grain was sowed; in thinner ground, barley.

VI. KITCHEN-ROOTS.

All those plants were preserved which the snow had covered, but the others have been the victims of the frost, as artichokes, colewort, fellery, and the aromatic herbs; those preserved were the sorrel, lettuce, asparagus, and wild fuccory.

VII. FISHES.

So intense was the frost that the usual method employed for preserving fishes, by making holes in the ice, did not succeed, because the fishes, when they came to breathe at these holes, were at once enclosed between two pieces of ice. The fishes, however, in deep ponds, did not share the fate of the others. The eel suffered most on this occasion, and next to the eel the pike and the carp.

domi, we might expect from his researches, the most important new discoveries in the science.

Professor MAYER, at Erlang, shines equally as a mathematician, a natural philosopher, and a chemist. HERMBSTADT is a strenuous advocate for the new doctrine.

The German chemists, WIEGLIEB, RICHTER, LEONARDI, and the rest above-mentioned, &c. in attempting to combine the new theory with the existence of phlogiston in combustible bodies, admit the general principle, together with its consequences. All they aim at, is, to rescue themselves from the pretended disgrace of a complete defeat. Those who still maintain the existence of this agent, consider it as the basis of light, or as *light extinguished*. This basis, stored up in abundance, in inflammable substances, when it meets and combines with heat, constitutes luminous fire: thus accounting for the fact, of combustible bodies requiring a certain degree of heat, in order to catch fire.

These are reasons which some of the German chemists lay down; with the exception, however, of these, they have all adopted the new doctrine. VAN-MONS has been chiefly instrumental in effecting conversion; having plainly demonstrated the presence of phlogiston in the oxyde of Mercury, made red-hot by fire.

When it is represented that some of the German chemists, and CRELL, maintain the existence of phlogiston, it is not meant to affect that they still profess the principles of *Stahl's* theory. A late publication of GREN, who is a profound naturalist, mathematician, and geometrician, as well as chemist, is entitled, "*The Foundations of the New Chemistry*," and agrees precisely with the principles of the French doctrine. In his *Manual Chemistry* reprinted two years ago, he represented the theory of oxygen, in parallel with that of phlogiston. He had done nearly the same thing, the year before, in the second edition of his "*Foundations of Physics*." A third edition of that work has been just printed, in which he explicates the phenomena of the science, after the system of LAVOISIER. His *Journal of Physics*, of which seven volumes have been published, has always admitted, indiscriminately, the articles for and against both theories. GMELIN devotes his whole attention to historical and technical chemistry. In the second edition of his *Manual of Chemistry applied to the Arts*, just finished, he has given the theory according to the ancient principles. His *In-*

production to General Chemistry furnishes an account of the state and progress of the science, in both theories.

WESTRUMB is a practitioner of technical chemistry, extremely well versed in the art. His writings on pharmacy vince equally the man of reflection in a science where it cannot be denied, that every thing still remains to be done. In both these pursuits, he judiciously neglects reasoning for facts.

CRELL is the editor of the *Annals of Chemistry*, an invaluable collection, which has, in fact, given the grand impulse to the prevailing study of chemistry in Germany. In this work the editor expresses faithfully the very language, as well as opinions, of the authors. He makes some hesitation, however, to adopt the new principles; but at his age, perhaps, it is difficult to renounce long entertained ideas. CRELL has also some correspondents, &c. (whom it is his interest to keep on good terms with) among the disciples of Stahl.

GIRTANNER, another eminent chemist, maintains, that phosphorus is compounded of zore and hydrogen; that it contains in it more or less of carbone, a principle which however, does not enter into its composition; that it may shine in azotic gas and carbonic acid by means of the water contained in those gases; and that it is capable of decomposition, inasmuch as a hydrogenous phosphorated gas may be procured from it in experiments.

OF THE EFFECTS OF THE COLD of the Winter,
1788-89 on Animals and Vegetables. Read by P. Corte
in the Royal Society of Agriculture of Laon, September
5, 1789.

THE winter 1788-89 was rendered remarkable by the intense cold felt all over Europe, by the enormous quantity of snow, which covered the earth, and the effects which the frost produced upon men, animals and vegetables. The frost commenced the 25th, of November, and continued till the 13th of January, including a space of fifty days successively, with the intermission of only one day of thaw (the 25th of

cares and his tender offspring. Then it is that *necessity*, that knows no law, hurries its wretched victim either to drunkenness, suicide, or to midnight theft.

The consequence of diminishing the mass of articles of luxury and parade, which are for the most part fabricated articles, would be that the labour withdrawn from forming them would be devoted to agriculture. This would produce two effects. It would make the necessaries of life produced by agriculture cheaper, and it would make the articles of manufacture dearer. Thus the life of the mechanic would be rendered happier, by his labour receiving an increased reward; the soil would be better cultivated by more labour being bestowed upon it; the seats of extensive manufacture, which administer to a pernicious luxury, would be destroyed; and the agricultural and mechanical professions would be brought nearer to a level.

An immediate consequence of this state of things would be, as has been observed, an increase in the value of the labour of the independent. By this means, there would be little necessary poverty. Society would be burthened with few paupers, and crimes, by removing the strongest temptation to their commission, would be greatly diminished.

Numerous are the additional benefits that would flow from this reformation in the habits of life. It is not necessary to present a comprehensive enumeration of them. It would not be practicable, if it were, without writing a volume instead of an essay. A few only of the beneficial effects will therefore be stated.

The present extravagant consumption of foreign luxuries would be diminished. Their immoderate use essentially depends on an ability to pay for them; were this destroyed their consumption would of course decrease.

Much corruption of manners would hereby be checked, if not destroyed. Every nation has its appropriate habits and manners. In a peculiar sense may the United States be said to have *their* appropriate habits and manners. The false splendour of courts, the pride and distinctions of rank, to them are and ought to be unknown. The close intercourse, which extensive commerce produces, the habits of imitation it generates in the dependant nation, are hostile in an extreme degree to characteristic simplicity of manners and virtuous habits of life.

The same causes, that produce a general imitation of manners and a spirit of dependence among the individuals of a na-

tion, imperceptibly shed their pernicious influence over the deliberations and proceedings of the nation itself. As foreign influence is always hostile to national independence, the injurious extent of its prevalence can scarcely be estimated. Whatever, therefore, annihilates or even controls it, unless in more important respects subversive of the public good, claims national approbation and adoption.

If a state of independent tranquility and undisturbed peace is the most intimately connected with national prosperity and individual happiness; if it insure to nations advantages substantial and permanent, whose lustre is altogether native, and which never allures by delusive attractions; if it insure to individuals the possession of their rights, the enjoyment and improvement of their property, free from apprehension; what citizen of a republic, the basis of whose government is the public good, will raise his voice against those measures which are calculated to give perpetuity to it. That such will be the effect, who can doubt, when he reflects that almost all the wars, which for centuries past have deluged Europe in blood, have arisen from disputes connected with commerce? Let us then rely upon this truth as unerring, that the less intimate our connections with European nations, the more likely our ability as well as disposition to avoid mingling in their contentions, or furnishing subjects of contention ourselves.

STATE OF CHEMISTRY IN GERMANY.

An entire revolution in the system of chemistry has been recently effected in Germany. The existence of the doctrine of phlogiston, with certain qualifications, had still, however, a few partizan remaining: GREN, a scholar of considerable repute, although too tenacious of his opinion, WESTRUMB, GMELIN, and CRELL.

TROMMSDORF, who is a convert to the new doctrine, still adheres to some remains of the ancient system. GOTTLING has promulged a new hypothesis, which he is eager to appear the champion of. With regard to the junior chemists of that nation SCHERER DE JENA is the most promising; he is a man of extensive talent, an excellent experimenter, and zealously attached to the French chemistry. Were it not for the *res angustæ*

many succeeding ages. The subject, however, is well deserving of the examination of the enlightened friend of mankind.

It is not deemed necessary to define what is meant by the necessities and conveniencies of life. This would be to enter into too wide a field of disquisition. It would also, in a great measure, be useless. For they are not, perhaps, the same at any two periods of the progress of nations. They depend on climate, on the state of improvement, on manners, and on a variety of causes, whose combination would be necessary before the desired result could be ascertained. The meaning of these words is, however, distinctly understood by all men. In trusting, therefore to their common sense, there will be little danger of producing misconceptions.

If the records of history be appealed to, it will demonstrably appear, that the poor who constitute the great mass of nations, have basely dragged out a miserable existence among those nations which were celebrated for the prevalence of luxury and the unequal distribution of wealth. It is unnecessary to go back to nations, over whose manners time has thrown a dark veil. Indeed, it is useless to look at all into the past. We shall have abundant proof of the truth of this remark from the present state of existing nations. In those countries where there is most labour, there is most wretchedness. In England, at present, and in France, before the Revolution, we behold a greater mass of poverty and wretchedness, contrasted with splendour and apparent happiness, than are to be seen any where, unless among the nations of the East, labouring under the double difficulties of their native, as well as European tyrant. Of all nations, ancient or modern, England has extended manufactures, which doom men to the most oppressive labour, to the greatest length; and in France, the corruption of the most splendid court in Europe, had produced a degree of oppression, unlimited as the caprice of despotism. Should it be granted, though it is equivocal, that the productiveness of let us say, eight hours of well directed labour, would be inferior to that of twelve or more, yet it does not follow from this concession that it would not be adequate to all the substantial wants of society. Why is it that the labour of slaves produces so little compared to that of freemen? It is not because their labour is not incessant. No. It is because no superintendence is equal to that of an intelligent mind; and because, by unremitted labour, corporeal vigor becomes exhausted and the spring of activity loses its elasticity. It may be doubted, whether half the time at present devoted to labour

among slaves would not be more substantially productive than the almost unceasing employment which they now undergo.

If we survey the different classes of men that form a nation, and estimate the portion of comfort that each enjoys, it will in almost every instance appear that agriculture presents to its cultivators the greatest happiness. This happiness will be found to consist in tranquility of mind, in simplicity of manners, in independence of spirit, in the indulgence of moderate wants, in the enjoyment of health, and in frequent intervals of exemption from hard labour. It should not be here lost sight of, that while this labour continues it is of the severest kind, and that it is submitted to with the greatest cheerfulness. Now this patient and even cheerful endurance of labour, we contend, arises principally from the assurance of being soon rewarded by a season of leisure and social enjoyment. This is the state of much the larger portion of men, and must always continue to be so. While therefore we pay a tribute of gratitude to the benevolent author of our being for placing the greatest part of his creatures in a situation so connected with their happiness, let us improve the obvious reflections such a train of thought produces, by considering that it is our duty to keep ourselves and others as near this state as possible, and by resting assured that the further men remove from it, the further do they remove from their true happiness.

When we contrast the manners of the agricultural state, with those of large towns which are the seats of extensive manufactures, we shall behold a perfect contrast of light and shade. A negative definition is sometimes better than a positive one. Were this to be given, it would not be incorrect to deny of the greater part of mechanical professions all that has been affirmed of a state of agriculture. Extensive manufactories are universally the seats of dissipation, of extreme poverty, so extreme generally as not to yield in anticipation provision for the ensuing week, of vice of almost every description, and of a spirit humble and inanimate as the dust as to all those objects on which an independent spirit ought to be exercised. Such are the effects flowing from large manufactories *in time of peace*. Even then they may be called, as many distinguished writers have called them, *the graves of the human race*. If such be their character in times of national tranquility and prosperity, to what shall we compare them in periods of war and adversity. It is then that ruin stares thousands in the face, and famine rapidly approaches not only the father, but also the partner of his

a great way into the country, he met with whole herds of elephants, which were first observed in a coppice, by a Hottentot who had climbed up a tree. The African having remarked one separated from the rest, Mr. Vaillant made a circuit, in order to get a better view of the animal, which he saw shake its head; for the elephant, when motionless, amidst the obscurity, appeared to him like a rock. He fired at it, and the ball of his carbine penetrating its forehead, killed it upon the spot. Mr. Vaillant, however, had the prudence, before he fired, to point out the coppice to his Hottentot, giving them orders to set fire to the bushes, and to the dry and long grass which surrounded it, as it is well known that elephants may always be put to flight by fire. This traveller killed five others at the bottom of a rock, to which he had retired, in order to avoid danger: he dispatched them with the greatest facility, as the whole troop in their flight were obliged to pass within musket-shot of the place where he stood. He killed also five cameleopards, one of which animals was brought to Paris*.

He remarked that the lion when not hungry flies from man; but one bolder than the rest stopped and gazed upon him, with a look full of majestic dignity, which Mr. Vaillant returned with equal firmness and intrepidity, without turning aside, and without attempting to fly.

This botanical traveller had a cock with him, to serve him instead of a watch, in case his time-keeper should be deranged; and an ape, to taste the fruits and provisions, that he might know those which were fit to be eaten. This wise precaution, perhaps, saved him from being poisoned. The cock followed, searching out his way during the whole journey; and the ape, to refresh itself, sometimes got upon the back of one of the large dogs, with which he lived in the greatest harmony.

Mr. Vaillant, who employed five years in this journey, has brought with him a curious and valuable collection of plants, engravings of which are executed. He has travelled over a considerable part of Africa in the course of this expedition, and viewed many curious objects, which no other European ever had an opportunity of examining.

* Few of these animals have ever been seen alive in Europe. They were formerly shown at Rome as great curiosities. Suidas observes, that Cæsar was the first who exhibited one of them to the Roman people. Several of them attended the triumphant entry of the Emperor Aurelian.

For the American Universal Magazine.

REMARKS ON INDUSTRY, No. II.

THE first proposition I have stated is, that men have devoted themselves, to the exclusion of all mental improvement, to unceasing corporeal labour, from the not reflecting,

That the poor of a nation must always be the instruments of labour, and that as far as this labour furnishes the necessities, and even the conveniences of life, it is rationally directed; but that as soon as in addition to these, it employs itself with enervating toil in works of luxury and extravagance, it depreciates the value of its services, and receives no greater reward for twelve or more hours of rigid employment, than it before received for the product of a much smaller number.

There can be no diversity of opinion with respect to the truth of the fact that the poor of a nation must always be the instruments of labour. Man pursues his happiness with a steady step. This, to each individual, consists in the possession of different employments. Extensive wealth generally produces the love of repose, and an unlimited indulgence of all those propensities which delight in extravagant and sensual enjoyments. Dishonest ambition grasps power as the means of obtaining distinction and all its attendant possessions. Wealth generally follows in its train, and the power to oppress is seldom separated from the practice of it. One rich or powerful man may be compared to a whale, who daily devours hundreds of the weaker inhabitants of the ocean; for what other name does that oppression deserve, which hurries out of existence at a premature period, by immoderate labour, the larger portion of the human race, and renders them miserable while they do exist.

The labour that furnishes the necessities and conveniences of life is rationally directed. So far all are agreed. The acquisitions of honest industry should ever be held sacred. They seldom furnish a competence till advanced periods of life, when an exemption from toil, and a freedom from care, are the merited rewards of a life of usefulness and virtue. We will not even dispute the pretensions of hereditary endowments, that confer, often on profligacy, immense wealth. However equivocal the pretensions of these when overgrown to equitable protection, they have acquired a venerable sanction from the approbation of

TONQUIN CONJURORS.

WHEN a Tonquinese, is about to purchase a field, undertake a journey, or marry one of his children, he goes and consults a conjurer, who pretends to be blind, in order to let him know that he hears and sees nothing but truth: before he gives an answer, he takes a book; but he opens it only half, as if he were afraid of suffering prophane eyes to see what it contains. After having asked the age of the person who comes to consult him, he throws into the air two small pieces of copper, on which are engraved, on one side only, certain cabalistical figures or characters. If when the pieces fall to the ground, the figures turned towards the earth, it presages misfortune, but if, on the contrary, they are turned toward the heavens, the omen is happy. This manner of fortune telling is very common among the Tonquinese.

There are other magicians, who are only consulted for the cure of diseases—If the conjuror announces that the disease proceeds from spirits, they call them wicked genii, and shut them up in earthen vases; if it come from the devil, they invite the father of liars to a grand feast, which is given at the expence of the sick person's family; they assign him the most honourable place, pray to him, invoke him, and offer him presents; but if the disease does not abate, they load him with injuries, and fire twenty or thirty muskets to drive him from the house. If it is the god of the sea who has occasioned the distemper, they repair to the banks of some river, where they offer up sacrifices to appease him, and to intreat him to quit the sick person's chamber, and return to the waters. However, the sick person finds himself no better; and the magician takes his leave loaded with gold and presents.

Tong-king has its *Miao-ese* as well as China. These are savage and ignorant mountaineers, who, having shaken off the yoke of every nation, have retired to inaccessible mountains, where they lead a life much resembling that of those ferocious wild beasts which inhabit the same rocks with them. They form a kind of republic, of which their priest is the head. This chief has devised a particular system of religion and rites, which have no relation with those of the Tonquinese. It is generally in the houses of the priests, that their gods deliver oracles. A great

noise announces their arrival. These mountaineers, who in waiting for them pass the time in drinking and dancing, immediately put a stop to their diversions, and send forth loud shouts of joy, which are more like howlings than acclamations: *Father!* say they, addressing themselves to their principal god, *art thou already come?* A voice then answers, *Be of good cheer, my children, eat, drink and rejoice; it is I who procure you all those advantages which you enjoy.* After these words, to which they listen with silence, they again return to their pleasures. The gods however become thirsty in their turn, and ask for something to drink; vases ornamented with flowers are immediately prepared, and the priest receives them to carry them to the gods; for he is the only person who is permitted to approach or converse with them.

SOME PARTICULARS CONCERNING MR. VAILLANT'S JOURNEY TO THE INTERIOR PARTS OF AFRICA.

THIS learned naturalist, who has resided five years in the southern parts of Africa, departed from the Cape of Good Hope with three waggons, each drawn by ten oxen, in order to make observations in natural history and botany. Several dogs, a cock, and an ape followed. Among his baggage he carried three hundred pounds of lead, and powder in proportion, to make cartouches. Ten Hottentots, whose language he understands, accompanied him. He had abundance of provisions, and a sufficient quantity of strong liquors. Attended by this train, he passed, without any danger, through the territories of different petty sovereigns; after which he found only hordes, who received him with much friendship, and who often put themselves under his protection. These tribes are Nomrades, or wandering people, who sojourn in one part of the country no longer than while they find provisions: they often emigrate, and sometimes to a great distance. The country through which he travelled was rude in its aspect, and so difficult to be passed, that his attendants were obliged, from time to time, to cut down the wood, in order to make a passage. When he had advanced

success. At the end of the mock-fight one of the Swedish officers exclaimed, "We are undone now!" The king replied, "Let the Poles obtain the battle on the stage, but the Swedes in the field."

His voice was heard by Lady Koningmark, who knew him at once, and with great anxiety dispatched a page to apprise him of his danger. When the king received the message, he looked towards the lady, who immediately fainted. The king and his attendants took the hint which had been so kindly given them, and returned to the camp, before the Poles gained the least intelligence that the august person had been present in the very heart of the city as an humble spectator of the defeat of himself and his army.

THE ADVANTAGES OF CLEANLINESS IN PREVENTING INFECTIOUS DISEASES.

IT is a proverb in the Levant, that no Prince ever died of the plague; the meaning of which only is, that opulence, and the many resources it affords, are preventatives against that contagion. Of this we have seen recent instances in the pestilence which lately ravaged Algiers. It has been remarked, that none of those who enjoyed the first offices of the state, were attacked by this distemper, though, according to the precepts of the Mahometan religion, they were obliged to appear in public, as at any other time, and though in compliance with general custom, they gave their hand to be kissed indiscriminately, to every Moor who came to beg justice, and to throw himself under their protection. This contagious disorder was not therefore communicated to them by contact; which must be, attributed to their great cleanliness, to the use of baths, and to the frequent ablutions which are prescribed them by the law of Mahomet. We know that the Mahometans pray five or six times a day, and that at each prayer, those whose situation will permit, purify themselves by washing their hands; they generally make three meals every day, and each meal is preceded by the same ablutions; they wash themselves also every time they touch any thing unclean; so that in this respect, their religious rites are very much suited to the nature of the cli-

mate, and become very salutary to them ; since it is known by experience, that water alone is sufficient to carry off the contagious impurity of the pestilence.

For a like reason, the subaltern officers belonging to the household of the Dey of Algiers, such as those who inspected the different departments, secretaries, clerks in the various offices, &c. in general escape the plague ; though they preserve, during the time this dreadful epidemical disorder is reigning, an open communication with the other Moors. Of three hundred officers of this kind there were only two attacks during the last plague at Algiers ; which must appear almost miraculous, since the populace perished by thousands, and easily caught the infection, on account of their dirtiness, and negligence respecting their persons. There is above all a particular sect of Mahometans, who observe several points of the Mosaic law, and who in general, exercise mean, but lucrative employments ; such as serving in the public baths, selling old clothes, &c. These Mahometan Jews, attached to all the minute care of a retail trade, and living in meanness and filth, were swept off almost entirely by the last plague at Algiers ; which undoubtedly still more confirms the great advantages of cleanliness.

The more attention we pay to the phenomena of contagious disorders, such as the plague, malignant fevers, the small pox, &c. we shall cease to consider the principle of contagion as diffused throughout the air ; and it is now more and more confirmed by observation, that these diseases are communicated by contact either mediate or immediate. One cannot therefore during epidemical distempers of this kind, too strongly recommend cleanliness to those who approach the sick, or too much exhort them to change their dress as frequently as possible ; to keep exposed to the air the clothes which they have used, or to dip them in water ; to wash the hands and face frequently, and to make this a general rule, above all when they have touched either the clothes or linen of a diseased person. This attention will be of the greatest service in stopping the course of infection, but unluckily it is too much neglected.

tion, as perhaps they may overturn the theory, which I have admitted, of the identity of the nervous and electric fluids. The rest, however, the inertness of which I have been speaking, are not constant; for my electrical conductors produced their effects, sometimes in a quarter of an hour, at others in half an hour."

Dr. Valli drowned some chickens, and afterwards excited their electricity in their wings, which he had previously prepared: the muscles of some of them remained motionless; those of others were strongly agitated; and two, which were to all appearance dead, were restored to life. Chickens killed in nitrous, mephitic, or inflammable air, always gave very feeble shocks, and none of them were restored to life.

From some experiments which Dr. Valli has made with frogs, he infers, that the animal electricity is capable of moving through a part in opposite directions at the same time, though the two currents in some measure impede each other, and one may totally stop the other if its force be considerably superior. Thus the will moves a part which is at the same time conveying to the common sensorium the sensation of pain; and thus violent motion deadens pain, and violent pain prevents motion.

Chickens killed by a mortification of the intestines, brought on by means of a ligature on them, gave no signs of electricity. Chickens and rabbits starved to death had the usual experiments tried on them equally in vain.

ANECDOTE OF CHARLES XII. KING OF SWEDEN.

IN the citadel of Stockholm we were shewn a set of small ordnance which belonged to King Charles XII. consisting of four and twenty brass cannon, mounted on their carriages. Very early in life, before his love of destruction had occasioned to many wild adventures, he used to amuse himself with firing at objects with his artillery. Probably it would have been happier for him, as well as his country, if he had always been thus innocently employed. Gen

general Steabork was the prince's instructor in this science. He had discovered several improvements in the art of gunnery, and got this set of brass cannon cast to illustrate his principles to his royal pupil, for whom he intended them as a present.

There is an anecdote related of this prince, which happened at the time of his receiving the present. As it, in some measure, had an influence on his future conduct towards the ladies, I will tell it you, without, however, vouching for its authenticity.

Very early the next morning, after he had received this present, before it was light, he waited privately upon the general. After much knocking, the door was opened by a maid-servant, and in a few moments the royal visitor was at the bed-side of the general. After returning thanks for so acceptable a present, and a long discourse on the general's new plan of sending a cannon-ball to its greatest distance, he took his leave, and was lighted down stairs by the same maid servant that introduced him.

Though unaccustomed to acts of gallantry, and always upon his guard against excesses of this kind, yet for once Charles was surprized by an amorous inclination. Observing the attendant to be a young and handsome girl, he attempted to take some liberties with her which were not agreeable. Being a native of Daharna, and not knowing, or pretending not to know, the prince, she gave him an hearty box on the ear.

From this time, it is said, he took a dislike to the fair-sex: it is certain that he never afterwards sought their society. Even the beautiful Lady Koningsmark, who was reckoned the handsomest woman of that time, could never make any impression upon his heart. When this lady found herself slighted, she left the kingdom, and became mistress to the king of Poland.

From that time, they never met but once; when that was I think I will inform you, as I am now in the humour for telling a story. At the time King Charles the XIIIth laid siege to Warsaw, he, with very few attendants, left the camp, and rode privately to the city, to see an opera which was to be represented that evening. The subject probably had attracted him, and he did not always consider the consequences of a rash action. This was a representation of a battle between the Polish and Swedish armies, the former of which, upon *this* occasion, was certain of

the animal part is nearly extinct, no farther sign of it is obtained. Different metals employed for the coating, or as exciters, exhibit singular phaenomena. With silver and gold, for instance, the animal gives very slight marks of vitality, if any. When Dr. Valli had found that the fluid might be made to circulate by means of coating the muscle alone, he tried the experiment without denudating the muscle. It did not always succeed: though it generally did, if two coatings were used. On himself the doctor tried the experiment several times, but without success. The movements produced by these artificial means, differ from those which the animal produces by volition: or rather the two movements are effected in totally different manners. Dr. Valli stripped the thigh of a living frog of all its muscles, without injuring the crural nerve, which he coated near the spine. This coating he touched with one of the extremities of the exciter; and the bare nerve, or the muscles of the leg, with the other. The leg remained unmoved, though the animal occasionally moved this very limb, which would not yield to the experiment. At other times, on the contrary, the frog made no spontaneous movement, whilst violent ones were excited by the conductor. On the application of opium to a nerve, the animal lost the power of moving the parts to which it was distributed; yet the conductor excited motion in them. Vitriolic and nitrous acids applied to the heart destroyed its movement; applied to the muscles and nerves of other parts, they did not destroy theirs. Frogs killed in water at different degrees of heat, from 36° to 83° of Reaumur, forded signs of vitality, though weak to the exciter: killed in frozen water, they lost little or nothing. Doctor Valli opened a mouse just dead, coated the fore legs, and touched the coating and the muscle. No motion took place in the limbs; but the hair bristled up at the approach of the conductor, and seemed as if agitated by a gentle wind. In another mouse, fixed to a table alive, strong emotions were excited. In a rat no-motion took place, and no agitation of the hair was perceivable. Having coated the four paws of a tortoise, they all moved strongly, though slowly, and with a motion similar to that which is peculiar to the animal. The experiment was continued for two hours at different periods; but Dr. Valli found himself at last obliged to allow the animal intervals

of rest of some minutes, before it would exhibit fresh signs of electricity. The same phaenomena may be observed in all other animals.—Dr. Valli conjectures, that the nerve may be continually drawing the electric fluid from the interior surface of the muscle, which is thus deprived of a portion of its electricity, whilst the external surface remains always in the same state. To establish this hypothesis, he conceived some experiments, of which the following is the principal. He opened the abdomen of a living frog to lay bare the crural nerves. One he cut, the other he left untouched: he divided also the muscles of both thighs. Having coated each of the nerves, he made the discharge with the exciter alternately in the two limbs. The limb of which the nerve was cut preserved its vitality longer than the other. In this experiment, however, the effect was not always uniform.

Dr. Valli made many experiments to determine whether the blood vessels and other parts were conductors, or not; and from them he infers, that they are conductors, but that the nerves alone are capable of exciting motion in the muscles. The bones are not conductors when divested of the periosteum.

In experiments made with a chicken, several curious circumstances occurred. Dr. Valli laid bare the nerves of the wings. His scissars passed underneath served as a coating, and a crown piece for the exciter. The motions were very brisk. During these electric discharges the animal appeared perfectly tranquil. For some moments the wing remained at rest in spite of the exciter. The doctor had then recourse to a coating of lead, and an exciter of copper, but the wing still remained motionless. To find whether this were owing to the insensibility, or the inert state of the nerve, or rather from the muscular fibres being fatigued, he pricked and stimulated the coated nerve: at this the chicken uttered sharp cries of complaint, and shook the wing briskly four or five times. Having thus stimulated it, he tried again a silver conductor, but without effect. In the mean time he coated other nervous filaments which were distributed through the same wing, and from them obtained motions in the ordinary way. Some time after the same obstacles as above offered themselves; which appeared the more singular, as the animal moved its wing from time to time, and motion could be excited in it by mechanical stimuli. “These facts,” says the doctor, “deserve at-

THE
AMERICAN
UNIVERSAL MAGAZINE.

NOVEMBER 15, 1797.

ON ELECTRICITY.

BY M. VALLI, M. D.

DR. VALLI begins with avowing a mistake he had made, in saying, that the coats of the nerves had need of a coating to give a free passage to the electric matter. The coating is indeed necessary, but for another purpose. In fact, movement is obtained, whether it be the nerve, or the muscle itself, that is coated. Still, however, it appears, that the membranes of the nerves are bad conductors. If the nerve be tied close to the muscle, the experiment will not succeed: the electric fluid, finding in the muscle a better conductor than in the nerve, quits the latter, and consequently deviates from the path which it ought to take to excite the irritability of the muscular fibre whence motion is produced. On the contrary, when the nerve is tied at a distance from the muscle, the electric fluid, having no other road to take, pursues its course without being dissipated, and motion ensues. Motion is obtained, not only when the curved metallic conducting rod or exciter, is passed from the muscle to the nerve, but when it is passed from muscle to muscle, or from nerve to nerve. It is unnecessary to observe, that in these cases one of the parts must be coated.

If both nerve and muscle be coated with the same metal, some signs of electricity may be obtained by means of a conductor of a different metal: but when the vitality of

For the American Universal Magazine.



Engraved by Tackara & Vallance Philad^a

JOHN HOWARD, L.L.D. F.R.S.

THE AMERICAN UNIVERSAL MAGAZINE.

No. VI.]—NOVEMBER 15, 1797.—[VOL. III.

Enbellished with a portrait of Howard.

CONTAINING,

On Electricity,	397
Anecdote of Charles XII. King of Sweden,	400
On the advantages of cleanliness in preventing infectious diseases.	401
Tonquin Conjurers,	404
Some Particulars concerning Mr. Vailant's Journey to the interior parts of Africa,	405
Remarks on Industry, No. II.	403
State of Chemistry in Germany,	407
Of the effects of the cold of the winter 1788-89, &c.	409
Extract of a letter from Madam Necker,	412
Memoirs of the life and writings of Madame Du Boccage,	414
Curious account of a Spanish play,	421
Account of Capturing Elephants,	423
Account of Ancient tombs found in the North,	423
Account of Shakespeare's Crab-tree,	430
The Iron Mask,	433
The rights of the Brute creation to tenderness from man,	435
Of the form given by certain people to their children's heads,	442
An account of the Marble mountains in Egypt,	443
Some account of city of Paris in 1698,	445
Memoir on the regeneration of certain parts of the bodies of Fishes,	449
Account of the Camelopardalis or Giraffe,	452
Anecdote of Ragotski,	457

P O E T R Y.

Leontine's Tomb,	461
On Politeness,	462
Lines, by a young lady on putting a Butterfly out at her window,	463
Sonnet, by Charlotte Smith,	464

P H I L A D E L P H I A:

PRINTED BY SAMUEL H. SMITH and THOMAS SMITH.

No. 118, Chesnut Street.

Where communications will be received.